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The Church of Norbury, Derbyshire.

FIVE miles south of Ashburne, on a slight eminence overlooking the valley of the Dove, stands the old church of the small country parish of Norbury. Situated on a by-road, and remote from the usual run of Midland tourists, this village church is known but to few; nevertheless it well merits a visit from ecclesiologists on account of its singularly fine fourteenth-century chancel, and its unusual ground-plan. Moreover, the antiquary will here find two good shafts of pre-Norman crosses; two exceptionally rich examples of fifteenth-century monumental effigies; a remarkable palimpsest brass to a remarkable man; and one of the best collections of fourteenth and fifteenth century glass to be found in any village church throughout England.

The church of St. Barloke, Norbury, consists of a large chancel; clearstoried nave, with north aisle; and a tower in the centre of the south side of the nave, with a chapel both to the east and west. The lower portion of this tower forms the south porch. The history of the fabric is closely bound up with that of successive generations of the distinguished family of Fitzherbert, who for five centuries continuously occupied the manor-house to the immediate west of the church, of which several interesting remains are still extant. Norbury formed part of the great estates of Henry de Ferrers when the Domesday Survey was compiled. At that time mention was made of a priest and a church. A few years earlier, Henry de Ferrers, when founding the Priory of Tutbury (1080–1), had given this church and its tithes to the monks of that classical house. But in the year 1125 the Prior of Tutbury gave Norbury in fee-farm to William Fitzherbert on a yearly rental of 100*s*. From that date the Fitzherberts held the manor and a portion of the tithes of the priory up to the year 1422, when Nicholas Fitzherbert and Ralph, his son and heir, gave to the Prior of Tutbury lands at Osmaston, &c., in lieu of their fee-farm rent. Meanwhile the advowson of the rectory remained uninterruptedly in the hands of the Fitzherberts, as successive lords of Norbury, from the time of William Fitzherbert, in 1125, down to Sir Anthony Fitzherbert, who died in 1538. After his death the troubles and persecutions of the Fitzherberts for adherence to the unreformed faith began, and they became incapable, as Romanists, of presenting to the rectory. They still, however, lived at the Norbury manor-house for another century, until, through marriage with the heiress of Swynnerton, their chief residence was transferred to Swynnerton, Staffordshire.

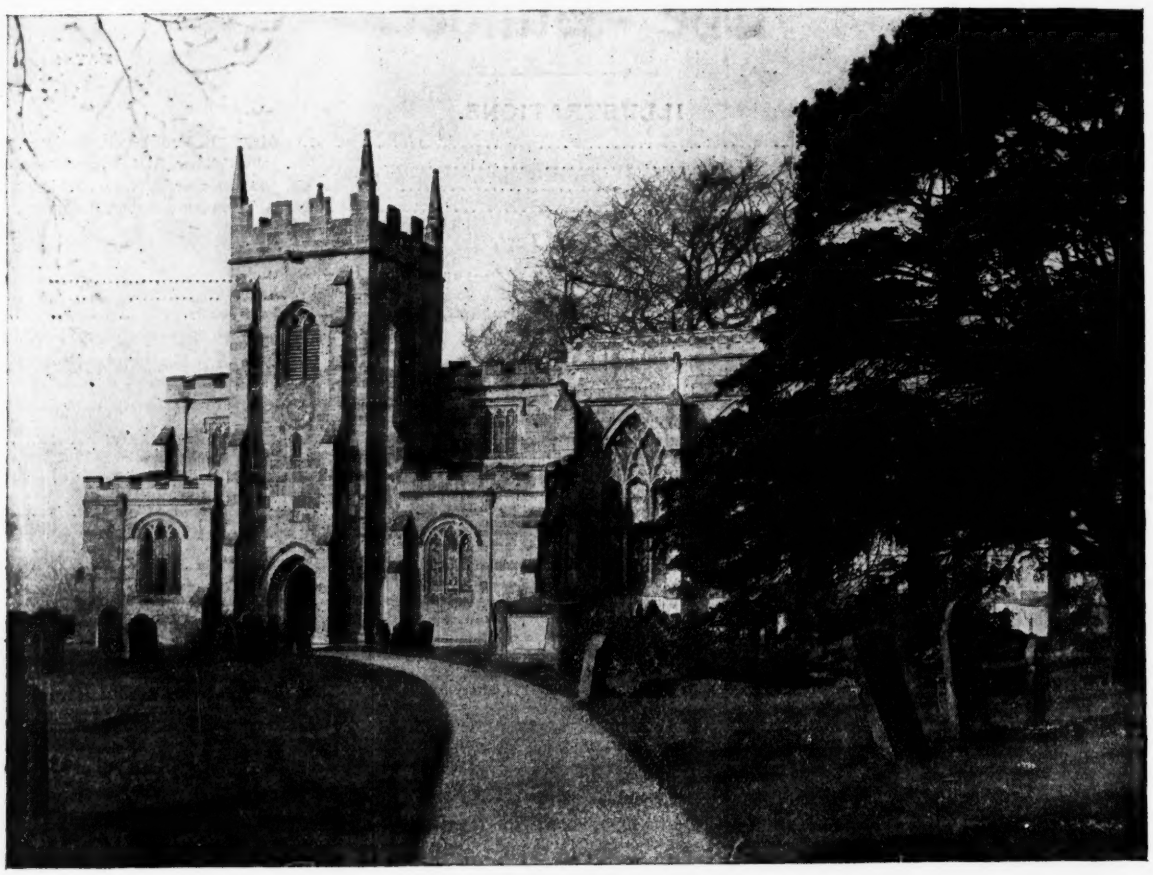
There seems to be reasonable probability that a church of stone stood on this site for some time prior to the Conquest. During recent repairs done to the chancel in 1902 the important discovery was made of the shafts of two Saxon upstanding memorial crosses, which had been embedded in the foundations of one of the fourteenth-century buttresses on the north side. One of these, inclusive of the unornamented base—which was originally sunk in the ground—measures 5 ft. 3 in. in height. The other fragment is the main part of the shaft of a cross, ornamented throughout, which is 3 ft. 9 in. high. In both cases the head of the cross is missing.

The sculptured patterns of these crosses are good examples of interlaced work, and on one side of the latter example is a small human figure bearing a staff. These crosses are probably of the ninth century, and one of them may be of even earlier date. If there were sufficient ability to construct these beautiful sculptured patterns on hard stone, and sufficient Christian fervour to erect two such memorials (the survivors probably of several others) in a Norbury graveyard at this early period, it may with some confidence be assumed that the church itself was of stone, and no mere wooden shanty.

The dedication of this church was to St. Barloke or Burlok, according to Fitzherbert wills of the fifteenth century. It is difficult to identify this saint, but he was possibly identical with St. Barrog or Barroc, a British saint of some repute in the sixth century, to whom the church of Bedwas, Monmouthshire, is dedicated. This discovery of pre-Norman crosses, built up into the fabric of the church, make its dedication to an early national saint all the more probable; for in those days it was customary to dedicate churches in honour of saints who had first preached Christianity in the particular place or district, or whose names were held in reverent and real or recent memory by their first founders. Such dedications were often disturbed by subsequent Norman rebuildings, but where they are met with they are frequently in association with the remains of ancient Christian crosses. Thus in Derbyshire there are, among the few dedications of English origin, those of St. Werburgh at Blackwell and Spondon, St. Altmund at Derby, and St. Chad at Wilne, and in every one of these cases there are highly interesting remains of pre-Conquest crosses.

A careful examination of the squared stones of the fabric brings to light the fact that several bear obvious traces of the characteristic "axeing" of Norman masons, proving that the present structure is largely composed of material that had been used in the Norman church, which was doubtless erected on the site of the previous ruder church of Saxon origin, and was probably built early in the twelfth century when the Fitzherberts first settled at Norbury. Three moulded stones of Norman workmanship have also come to light during recent restorations.

The substantially built Norman twelfth century church, consisting of a nave and chancel, apparently sufficed for the worship of this small village until the fourteenth century, when a new chancel was erected on a large scale. At the west end of the nave are some remains of the internal splays of a doorway, which may have been part of some slight modification or alteration of thirteenth century date. But there seems no doubt that an aisleless Norman nave was extant when the large new chancel was designed. The length of the nave was then, as now, about 50 ft., and as the builders of



Norbury Church: Exterior.

the twelfth century were generally fairly uniform in their dimensions, it may be assumed that the length of the former chancel was about 25 ft., or not much more than half that of its successor.

When Mr. Henry Bowman wrote and illustrated his most useful and timely volume on "Specimens of the Ecclesiastical Architecture of Great Britain" (Parker, 1846), he took the remotely situated but "very interesting and beautiful church" of Norbury as the most suitable one he could find wherewith to begin the work, and gave the first, and indeed the only, critical architectural account of it that has been published. Taken as a whole, Mr. Bowman considered that the architectural composition of the church was "exceedingly pleasing," nothwithstanding the somewhat "glaring discordance" between the chancel and the rest of the edifice. His actual phrases with regard to the exterior of the chancel and its buttresses may with advantage be reproduced:—

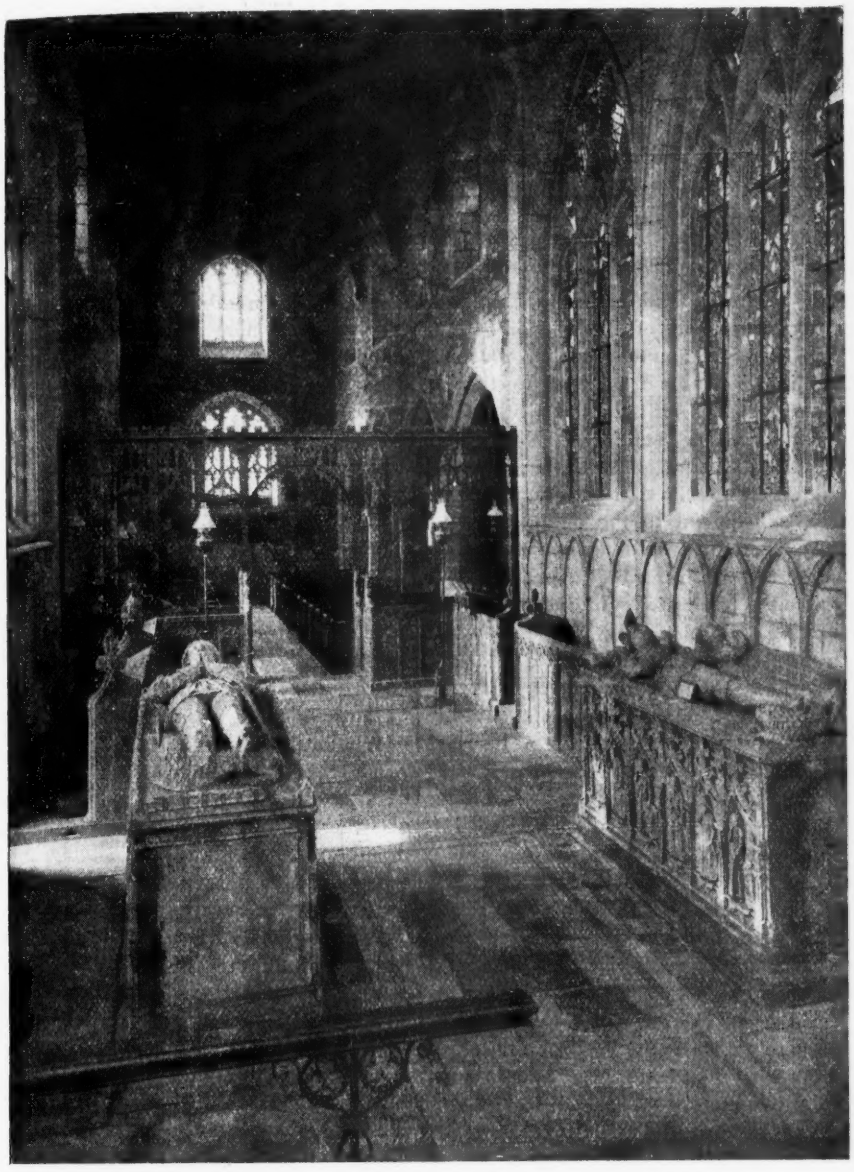
"The general character of the exterior of this chancel is at once bold and chaste, an effect more of outline and proportion than of deeply cut mouldings or elaborate workmanship; for not the least remarkable peculiarity in its composition is the great simplicity and elegance, not only of the general features, but also of the details. The dignity and boldness of the buttresses, and the chaste simplicity of the parapet, harmonise admirably with the light, elegant, and just proportions of the windows, and the whole composition is calculated to produce a very pleasing impression on the mind. The buttresses are peculiar. Though divided into two stages above the stringcourse, these are both of equal projection, so that there is, in fact, no set-off; and, again, the pyramidal cappings with which the buttresses are surmounted are not like anything we have before met with of the same period. Those of the angle buttresses are different from the rest, but still peculiar, being splayed off on two sides only, without any projecting mouldings."

In Mr. Bowman's now rare volume are ten plates of this church: (1) ground plan; (2) view from south-east; (3) external elevation of south side of chancel; (4) window on south side of chancel, coloured; (5) coloured glass of same in detail; (6) interior of chancel; (7) internal elevation of south of chancel; (8) details of stalls, piscina, mouldings, &c.; (9) window, north of chancel, coloured; and (10) coloured glass of same in detail. The glass details are not very accurate.

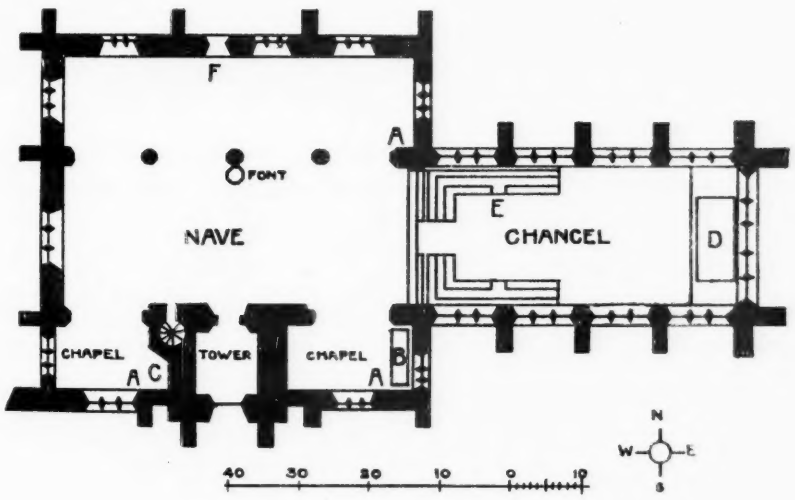
With regard to the date of this remarkable chancel, it has been assumed by one of our first architectural authorities that "it was probably finished and the windows glazed before the Great Pestilence of 1349." As to the architectural style, however, it would be very difficult to produce any English work known to be prior to that great check on building and on every other work of man's hands—the Black Death of 1348-9 — which would compare with the main features or with certain details of Norbury Church. There is, for instance, an awkwardness in the arrangement of the tracery in the upper part of the centre of the large east window which clearly speaks of an approach to the style that is usually termed Perpendicular, and which would have been almost impossible in the first half of the fourteenth century. With respect, too, to the glass of the side windows, which is obviously coeval with the fabric, there is hardly any room for doubt that the treatment shows a considerable advance on the grisaille designs of York, Exeter, and other examples in England of the first half of the fourteenth century, as well as on those in use during a like period in France. The heraldic display in the windows also favours the second half of the fourteenth century. But this is too large a question for present discussion. Mr. Bowman's conjecture as to the date of the chancel, knowing nothing of the history of the fabric, and judging solely on comparative architectural lines, was that it was built between 1370 and 1380. If this surmise errs, it is in putting the date rather too late, and possibly 1360 would be nearer the mark.

Coming to history, the episcopal registers show that Henry Kniveton was instituted to this rectory in 1349, the very year of the awful pestilence, on the presentation of Sir John Fitzherbert, and that his successor was not instituted until 1395. Between these two dates the chancel of Norbury must have been erected. The Meynell MSS. and the Rawlins MSS., as the result of visits made to this church in the respective years 1817 and 1823, make mention of the fact of an inscription on a slab in the floor of the chancel to the memory of Henry Kniveton, wherein it was stated that he was the builder of the chancel. This slab was, apparently, ejected and never replaced during the restoration of 1842.

In addition to that which has been cited from Mr. Bowman's discriminating remarks as to this somewhat peculiar and beautiful example of a fourteenth-century chancel, a few other brief remarks may be permitted. Its interior measurements are 46 ft. 6 in by 20 ft. A particular feature of its nine large windows—for it has four on each side—is the insertion in each case, at the central intersection of the upper tracery, of a well-carved double flower, or rose, of twelve petals. It should be noted that the five lights of the large east window are of unequal width, the centre one being 3 ft. 6 in. in breadth between the mullions; the two next lights 2 ft. 9 in.; and the outside lights 2 ft. 7 in. The arcade work of the interior of the chancel also deserves mention. The walls below the window strings, save at the east end, are filled in with a series of slightly-sunk cinquefoil-headed arches, five below each window. One of these arches in the



Norbury Church: Interior.



Norbury Church: Plan.

south wall is occupied by the piscina niche, which has a double drain and a double credence shelf. Against the same wall are three sedilia of equal height, but without any canopies over them.

The simple old Norman church had doubtless been content with a mere bell-gable turret, for one or two bells, at the west end of the nave, and this continued to serve for some time after the erection of the splendid chancel by Rector Kniveton, who was a man of considerable wealth. In the early years, however, of the fifteenth century there was a desire for better accommodation for bells, and a small tower was built for their accommodation. Mr. Micklethwaite, whose opinion was asked in connection with recent restoration, considers that it was erected "about a hundred years after the rebuilding of the chancel . . . and that it is a good ordinary work of the time." At all events, this tower was built some time in the first half of the fifteenth century. Its position in the middle of the south wall of the nave is decidedly unusual, and the lower story was utilised to form a porch. There is a good reason why such a position should have been chosen, which has not hitherto been noted by any one. There used to be a covered entrance or gallery from the adjacent manor house immediately to the west of the church, which allowed the Fitzherberts to enter a loft at the west end of the parish church without going into the open air. The old tenant of the manor house, whose family had been there for several generations, used to point out the exact position of this passage, much of which was still standing when Mr. Meynell visited the church early in the nineteenth century. This communication at the west end of the fabric was probably the reason why the new tower was not built in the usual place. Somewhat later, towards the close of the fifteenth century, further great changes were made in the fabric. The nave was rebuilt and a north aisle added, as well as a clearstory. The position of the tower rendered a south aisle impossible; but chapels were designed east and west of the tower to produce as near an approach to an aisle as was possible without the removal of the tower. This work was designed and most of it carried out by Nicholas Fitzherbert, tenth Lord of Norbury, who died in 1473. By the side of his monument, which originally stood in the south-east chapel, was the following epitaph, which has been copied from Le Neve's manuscript collection of inscriptions:—"In Northbury Church in Derbyshire, on a tombe in a little chapel; on the right hand:—

'An [M]CCCC. seventy and three
Yeres of our Lord passed in degree
The body that beried is under this stone
Of Nichol Fitzherbert Lord and Patrone
Of Norbury with Alis the daughter of Henry Bothe
Eight sonnes and five daughters he had in sothe
Two sonnes and two daughters by Isabel his wyfe
So seventeen children he had in his lyfe
This Church he made of his own expence
In the joy of Heaven be his recompence
And in moone (*sic*) of November the nineteenth dey
He bequeathed his Soule to everlasting jey.'"

In the chancel is an alabaster slab with the incised figure of a priest under a canopy in eucharistic vestments, and holding a chalice. The stone is much worn, and only parts of the marginal inscription are legible, but sufficient remains to show that Henry Prince, who was rector from 1466 to 1500, re-roofed the chancel. The re-roofing and reconstruction of the western end of the chancel became necessary owing to the rebuilding of the nave, and a lower pitch of the chancel roof was adopted to make it harmonise with the clearstoried nave. It would probably be at this time that the chancel arch disappeared. The absence of a chancel arch is a decidedly uncommon feature of an old church in the Midlands; but the fifteenth-century church builders of Cornwall and North Devon usually did away with this arch, and thus gave greater facilities for the erection of elaborate screens and rood-lofts that were then becoming so fashionable. When the chancel roof was lowered, the side walls were slightly raised the pointed edge of the parapet, of peculiar and effective design, is probably of that date, for the inner side of these stones shows that they have been reworked from a former battlement. It was suggested about the middle of the last century, and is now sometimes repeated, that the exceptional form of this parapet was an imitation of the heraldic *vaire* which occurs in the arms of Fitzherbert, of Norbury (Arg., a chief vaire, or and gules, over all a bend sable). But irrespective of the extravagant idea of imitating a

mere fur—which was only equivalent to a colour, and formed no part of an heraldic design—a close examination shows that the supposed similarity does really not exist, and has at most but a vague resemblance.

The work of reconstruction designed by Nicholas Fitzherbert was accomplished by his grandson, John Fitzherbert, twelfth lord of Norbury, who built the south-west chapel. He did not die until 1531, but by his will, dated September 21, 1517, he left his body to be buried in the parish church of Norbury, "under the newe made arche benethe the steple or elsewhere as God shall otherwyse dispose it." The plain table tomb to his memory, with alabaster sides, now stands again in its original position, namely, under the arch into the chapel to the west of the tower.

As to the interior of the church, there is one important detail, which is older than any of the monuments or other remains, save a few uninscribed coffin-lids or old memorial stones, and that is the thirteenth-century font, which is of simple but effective design. It is figured in Paley's "Baptismal Fonts" (1844).

The church is rich in monumental remains. The oldest identified memorial is that of Sir Henry Fitzherbert, fifth Lord of Norbury, who came into his inheritance in 1267, and died soon after 1310. He rebuilt the manor-house at the beginning of the fourteenth century, and to him was probably due the gallery that led into the church. His effigy is sculptured in durable stone, and represents a knight in chain armour, with a hood of the same on his head, whilst over the armour is a surcoat. It is in fairly good preservation.

There are but few parish churches in England that possess two such beautiful effigy-bearing table-tombs of the fifteenth century as those of the tenth and eleventh lords of Norbury. The tomb of Nicholas Fitzherbert (1473) bears his knightly effigy delicately carved in alabaster, in plate-armour of the period. His head, with short-cut, straight hair, rests on a helmet surmounted by the crest of a clenched gauntleted hand. Round the neck is the collar of suns and roses, with a lion pendant, which was the badge of Edward IV. There are not many effigies extant wearing this collar; Derbyshire, however, has another example, which occurs on the brass to Roger Bothe (1476) in Sawley Church. Roger was brother-in-law to Nicholas of this monument. The long sword rests by the knight's left side, and of all the beautifully finished details of the monument, none show more care than the particulars of the sword-belt. There can be little doubt not only that such effigies as this were designed by the sculptor as portraits, but that the actual armour and ornaments were faithfully copied from those worn by the deceased. The feet rest upon a lion, with the curious addition of a minute angel on the lion's back supporting the tip of the right foot. The east end of the tomb is blank, and was probably so originally as a necessity of its position. At the west end are two female figures, which were certainly intended to represent his wives—Alice Bothe and Isabel Ludlow. The sides of the monument are panelled into numerous niches to contain beneath crocketed ogee canopies small figures of the large family born to Nicholas Fitzherbert. On the south side are the eight sons by his first wife, all in slightly different costume. On the other side are the five daughters by his first wife and the two sons and two daughters by the second wife. As recently as 1870 many of the names of the children could be read in painted letters; but since that date almost all traces of these names, as well as many remnants of the original gilding and painting, have been cleaned away.

The other fine alabaster table-tomb bears the effigies of Ralph Fitzherbert, son and heir of Nicholas, and his wife Elizabeth, daughter and heir of John Marshall of Upton. This monument is so precisely similar in its whole treatment to that of Nicholas that it is not only the work of the same sculptor, or school of Nottingham sculptors, in Chellaston alabaster, but was also probably executed at the same date—namely, subsequent to the death of Ralph in 1483, when it would appear that John Fitzherbert, twelfth lord of Norbury, gave orders for the tombs to both his father and grandfather. Ralph's effigy is very similar in arrangement to that of his father; one of the few points of difference being that the tip of the right foot is sustained by the diminutive crouching figure of a bearded beads-man. The collar founded by Edward IV. is also round his neck, but with a boar as pendant—the cognisance of Richard III. His lady wears a close bodice and gown, which have been painted green, and a mantle painted red. The hair is arranged in a pointed, reticulated head-dress, on which are some traces of gilding. Encircling her neck is a chain, on the pendant of which are the Blessed Virgin and Child. There are two small dogs at the foot of her robe, and the cushion beneath her head is supported by two angels. The east end of this tomb is also blank, and at the west end are three angels holding shields. On the north side are six niches under crocketed canopies occupied by Ralph's various distinguished sons; whilst on the south side are the eight daughters. All the children bear shields, the blazonry on which has only finally disappeared of late years.

These two beautiful tombs have quite recently suffered sorely. Sir Ernest Clarke, F.S.A., described to the Society of Antiquaries a visit he paid to this church in January, 1893. He found "the two magnificent altar-tombs to Nicholas Fitzherbert and his son Ralph smothered with boughs and twigs of fir which had been stuck in every crevice. . . . . We counted on one tomb alone twenty-five recent chippings of the alabaster, especially on the side nearest the wall, and a further search would doubtless have revealed more." Happily the present rector keenly appreciates the value of the various memorials within the church of which he is custodian.

On the death of John Fitzherbert, twelfth lord of Norbury, in 1517 the property passed to his younger brother, Anthony, a man of much celebrity and probity. Sir Anthony Fitzherbert became a most distinguished judge, being made one of the Justices of the Common Pleas in 1522. His legal works are even now of much value. He died in 1538. The monument to Sir Anthony and his second wife, Maud Cotton, by whom he had ten children, is noteworthy. It consists of a large blue stone inlaid with brasses. The head of the judge is missing, together with the group of sons and part of the elaborate marginal inscription. All that remains is palimpsest. These re-used fragments of older brasses were of fourteenth and fifteenth century dates, the latter being the epitaph of one Thomas, the prior of some religious house. The spoiling of the monasteries and the sale of their memorials were in full swing at the time of Sir Anthony's death. These brasses are now securely fixed; rubbings of the reverse sides have been placed in the vestry.

Striking as are the monuments at Norbury in stone, alabaster, and brass (of which only the most memorable are here named), the church is yet more remarkable for its wealth of old glass. There are only one or two village churches in all England that have more interesting or valuable remains of old painted glass. The retired situation of the church and the close proximity to the building of the manor-house of the once powerful and ever-respected family of the Fitzherberts were the probable causes that hindered the destructive action of Puritan iconoclasts of the sixteenth and seventeenth centuries. But the neglect, parsimony, and greed of the eighteenth and early nineteenth centuries did grevious harm to that which had escaped the devastations of religious and civil strife. The great east window of the chancel, which had been filled with fourteenth-century subject glass, got into bad repair about 1800, when the then rector, Mr. Mills, actually blocked it up with lath and plaster, in order to save the expense of repairing it, for which he as rector was legally liable. His successor, the Rev. T. Bingham, was offered a large sum of money, by a Roman Catholic family of Yorkshire, for permission to remove what remained of this east window glass to a private chapel. The offer was at first declined (1823), but seems afterwards to have been accepted. At all events, this valuable figure glass soon after disappeared, and cannot now be traced.

A well-intentioned, but reckless and disastrous, restoration of Norbury Church, was carried out in 1842. At that time most of the clearstory windows of the nave, the large west window of the nave, and the small windows of the north aisle, as well as the great side windows of the chancel, were filled with painted glass. The east window of the chancel was again opened, and, by a most unhappy lack of judgment, it was decided to fill it up with glass brought from the body of the church. Not only did this decision cause much damage and loss to the old glass in the course of its translation, but it effectually destroyed the harmony and consistency of the scheme of the chancel colouring by placing glass in juxtaposition with work of a very different style, and at least a hundred years earlier in style. On some of the quarries of the east window may be noticed the initials N. and A., and on others the golden star, or *rose en soleil*, the badge of Edward IV., showing that it was glass put in by Nicholas and Alice Fitzherbert, *circa* 1450. Other pieces, taken from the south-west chapel, bear J. F., being the initials of John Fitzherbert, *circa* 1500. In the centre light is a representation of the Holy Trinity, taken from the same chapel, and elsewhere are the somewhat mutilated figures of the Twelve Apostles taken from the clearstory windows.

The eight large windows of the side walls of the chancel retain, for the most part, their original fourteenth-century glazing. They are filled with grisaille glass of scroll-work and varied leaf patterns, re-

lieved with occasional colouring in red, blue, or green, and having a large shield of arms inserted near the top of each of the main lights. In 1842, certain parts were found to be missing, and they were clumsily reproduced on the cheap by mere brush daubing, which has already worn off in parts. The patterns in the tracery lights were also mainly of modern insertion.

There is some interesting fifteenth-century glass in the south-east chapel, though here, again, much of it proves, on close examination, to be the imitative smearwork of 1842. It includes figures of SS. Anne, Winifred, Osyth, John Baptist, Anthony, and the patronal saint of the church, lettered below, "Sanctus Burlok Abbas;" as well as small kneeling figures of the two families of Nicholas Fitzherbert. There is also some further old painted glass in the west window of the nave. We understand that the old glass of Norbury is now in process of being releaded. It is sincerely to be hoped that no attempt will be made at any further refilling or unnecessary repair, but that it will be left to tell its own tale of the art of past generations.

Between 1899 and 1902, certain absolutely necessary repairs of this church, both in nave and chancel, mainly consisting of new roofs, have been well carried out on conservative and reverent lines by Messrs. Naylor & Sale, of Derby.

WORKMEN'S COMPENSATION.

THE Court of Appeal have recently had under consideration a considerable number of appeals in cases under the Workmen's Compensation Acts. One of the decisions of the most importance is that in the case of Stevens *v.* General Steam Navigation Co., in which it has been decided that the references contained in the Workmen's Compensation Act, 1897, to the Factory Acts, 1878 to 1895, which have since been repealed by the Factory and Workshop Act, 1901, "an Act to consolidate with amendments the Factory and Workshop Acts," are now to be read with reference to this latter Act. The effect of this decision is that the scope of the Workmen's Compensation Act has been extended by this indirect method of legislation. This extension is chiefly connected with the question of ships, which we need not deal with in these pages, but as regards other undertakings, the chief extensions seem to be as follows:—

1. In the Workmen's Compensation Act, 1897, "railway" is defined by reference to the Regulation of Railways Act, 1873, and includes "every station or siding belonging to such railway and used for the purposes of public traffic." Section 106 of the Factory Act, 1901, however, makes any line or siding used in connexion with a factory or workshop or any place to which any provisions of the Factory Act are applied, a factory. Thus it now appears these private lines will come within the scope of the Workmen's Compensation Act as "factories."

2. By the Factory Act, 1901, some new undertakings are made "factories," viz., (*a*) "Electrical Stations," which are defined as "any premises, or that part of any premises in which electrical energy is generated or transformed for the purpose of supply by way of trade, or for the lighting of any street, public place, or public building, or of any hotel, or of any railway, mine, or other industrial undertaking;" (*b*) "Dry-cleaning, carpet-beating, and bottle-washing works." The liability under the Workmen's Compensation Act is imposed on the "occupier" of the factory, and it is a curious fact that, although the Factory Act, 1901, carefully supplies a definition of the word "owner," no definition is given generally of the word "occupier," which is the keynote of the whole question, as it is only the "undertaker" or "occupier" who is liable under the Workmen's Compensation Act to his employees.

Atkinson *v.* Lumb is an important case on the area of employment in "engineering works." Except in the case of railroads, harbours, docks, canals, or sewers, to make an undertaking an "engineering work" under the Workmen's Compensation Act, machinery has to be used. In this case a reservoir was being constructed by means of machinery two miles from the town of Todmorden. This reservoir was to be connected with the town by pipes, and no machinery was necessary on this latter operation. A man laying these pipes was injured 500 yards from the reservoir, and he was held to be employed "on, in, or about an engineering work," the court holding that he was in actual physical contiguity to the area embraced by the undertaking an engineering work, and distinguishing the case from those decisions where the workman, although engaged on his master's business, was outside the physical area of the undertaking.

The case of Ives *v.* Langley (the *Builder*, p. 443, *ante*), raised a point somewhat similar to those which arise under the Public Health Act in relation to sewers. Four cottages all under one roof were being erected, and an employee engaged in erecting a gate in a yard attached to the first cottage was injured: scaffolding was at the time being used on the third cottage. The Court held that the back yard was within the curtilage of the building, and that all the cottages were one building, and that, therefore, the man was employed "on in or about a building being constructed by means of a scaffolding" within the Act. It should be noted that in one case Preston *v.* Wade (*Builder*, p. 467) it was contended that to render an employer liable under the Act he must be the person using the scaffolding in his undertaking, but the Court of Appeal entirely negatived any such construction of the Act. We have already commented on the point of ladders constituting scaffolding, Elvin *v.* Woodward & Co. (*Builder*, May 2). The case of Vamplew *v.* Parkgate Iron and Steel Co. is an important one on the distinction between a "workman," a man within the Act, and an independent contractor. The man in this case was engaged to break steel and clear cinders, employing men under him and being paid so much a ton. The Court held that there was ample evidence to justify the finding of fact by the County Court Judge that this man was an independent contractor and outside the Act. This has an important bearing on the position of miners and quarrymen who are usually paid by results, but we venture to think that that fact alone would not suffice to constitute them independent contractors, but, nevertheless, they will be wise to come to some agreement on the point as was done in the case of Evans *v.* Penwyllt Dinas Brick Co. (18 *Times* L. Rep. 58).

Giles *v.* Belford Smith & Co. is an important decision as showing that although the House of Lords have held that casual labourers are within the Act, yet the decisions which construed the schedule of the Act as involving continuous employment where the employer remains the same are still in force, and that therefore in calculating the compensation due to a man injured who has been irregularly employed by the same employer the Court must consider whether there has been a break in the employment, and not take into consideration all the days of employment during the preceding twelve months, but only the period of continuous employment. In the case of Rothwell *v.* Davies it has also been held that where a workman has been injured the employer cannot compel him to undergo an operation which in all probability would render him more efficient for work, but which would entail some risk.

NOTES.

The Panama Canal Treaty.

AFTER a prolonged controversy, the Senate of the United States has finally decided in favour of the ratification of the Panama Canal Treaty with Columbia. Two or three years ago it seemed very unlikely that the American nation would ever accept the Panama route. In the first place, there was a sentimental difficulty, due to the mistaken idea that it would be unpatriotic to adopt the Panama scheme, which was looked upon as a purely European, and consequently an antagonistic, enterprise. Again, Nicaragua had been associated in the minds of the people as the site of a distinctively American canal, conceived by American brains, and carried out from first to last with American dollars. Moreover, the Panama scheme suffered from the odium of past failure and mismanagement, and from floods of literature leading the public to believe that the failure of the first Panama Company was due to physical and engineering difficulties. It is true that the first Report of the Commission appointed by the President of the United States was in favour of the Nicaragua route, but it was distinctly stated that this choice was due to the excessive price demanded by the Panama Company, and as soon as the price was reduced to about 8,000,000*l.*, the Commission reported unanimously in favour of the latter scheme. Briefly summarised, the advantages determining this choice were, that the Panama route would be 134·6 miles shorter than the alternative; that it would necessitate fewer locks and less curvature; that the passage of vessels would be shortened by twenty-one hours; and that the annual cost of maintenance would be 260,000*l.* less. The decision that has now been made must be regarded as a distinct triumph of commonsense over misinformation, misrepresentation, and blind prejudice, a result upon which the American people are to be congratulated.

The Trades Dispute Bill.

THE debate on the second reading of the Trades Dispute Bill last week was really one upon the question whether legislation is needed upon the subject of picketing and trade combination. No one for a moment supposed, even if the second reading of the Bill had been carried, that it could have passed into law. As a matter of fact, it was

defeated by a small majority. The result of the debate is, however, that the Government has promised to inquire into the whole question by means of a Royal Commission. It is pretty certain therefore that no legislation will take place during the lifetime of the present Government. There is, however, some doubt whether on such a question as the combination of workmen to effect a particular object there is much need of further facts, since it is really a question of principle whether a number of persons should be allowed, even by legislation, to combine to do such an act, for example, as to persuade another workman to break his contract. It is obvious, however, that for some time to come we shall hear a great deal of the question, and it is equally certain that, with the voting power possessed by the workmen, the probabilities are in favour of a change of the law which will give greater facilities for labour combination.

The Alterations in the Strand.

MR. HAMO THORNYCROFT, in his well-intended protest in the *Times* a few days ago suggesting an alteration in the proposed north line of the Strand so as to open out St. Clement Danes Church better, seems to have omitted to take into consideration the whole of the site plan, and to have looked only at one end of it. The slight curve southwards opposite St. Clement Danes is only one end of a long curve which is to run past St. Mary-le-Strand and to be finished in a similar manner at its western extremity; it is symmetrically laid out, and as the whole new site here is on a symmetrical plan, Mr. Thornycroft's proposed alteration would disarrange it. If St. Clement Danes stood axially with St. Mary's it would be a different matter; but it does not. We are told on good authority that the proposed alteration would involve a loss of public money to the extent of at least 100,000*l*., and that it might be nearer 200,000*l*.; and considering that it would be really an interference with a symmetrical street plan, it is certainly not worth that.

Southwark Bridge.

INFORMATION as to Southwark Bridge may be of interest just now. John Wyatt originally projected a bridge from Three Cranes-wharf to Bankside; the Act for its erection by a public company was passed on June 15, 1811. Rennie was assisted by his son, Sir John Rennie, in the design and construction of the fabric, 1813-9. Walker & Co., of Rotherham, cast all the ironwork, the masonry of Craig Leith, Whitby, and Bramley Fall stone being built by Jolliffe & Banks. The abutments, 708 ft. apart, extend over 71 ft. apiece, the land and invert arches included; the piers, 24 ft. wide, rise to 60 ft. from the river-bed to the top of the parapet; their timber platforms, 2 ft. 6 in. thick, are 14 ft. below the bottom of the river and rest upon piles, some of which were driven to a depth of 23 ft. The middle arch, at that time the largest after its kind and exceeding by 4 ft. in span the famous iron bridge at Sunderland, has a span of 240 ft., with a rise of 24 ft. and a whole height of 53 ft. from low-water mark to the roadway; the two other arches have a span of 210 ft., the minimum length imposed by the Act. Solid masses of cast-iron constitute the soffits; in each arch are eight great ribs increasing from 6 ft. to 8 ft. in depth, riveted to diagonal braces, a method then adopted for the first time. All the braces and segmental parts are kept in position by means of long iron wedges and dovetailed sockets, so that bolts were used only during the construction for holding the pieces in place until the wedges had been driven in. Upon the spandrels, which are similarly connected, rests the roadway formed of solid iron plates joined with iron cement. Vertical and horizontal bond-stones tie the masonry of the piers and abutments. Upon the removal of the timber framework it was found that the settlement of the middle arch at the vertex was only $1\frac{7}{8}$ in., being exactly $\frac{1}{8}$ in. less than the limit allowed for. Experiments show that the arch rises from 1 in. to $1\frac{1}{2}$ in. during the summer months. The castings, some of which weigh 10 tons, have an aggregate weight of 5,780 tons. The total cost of the work, the approaches included, amounted to 800,000*l*. Admiral Lord Keith laid the first stone on May 23, 1815, and at midnight on March 24, 1819, the bridge was opened for traffic.

Parliament and Low-grade Gas.

THE Committee of the House of Commons which was engaged last week in hearing evidence for and against the Crystal Palace District Gas Company's Bill has decided to permit the company to discontinue purifying the gas from sulphur compounds other than sulphuretted hydrogen, and to reduce the illuminating power of the gas from 15 candles to 13 candles upon condition that the standard price shall be reduced 1d. per 1,000 cubic feet. The gas company may congratulate themselves upon having secured a good bargain for themselves, for the two metropolitan companies which have recently reduced their illuminating-power standard from 16 candles to 14 candles had to consent to a reduction of 2d. per 1,000 in the standard price. This reduction to a 13-candle standard indicates that the advocates of low-grade gas are gaining in number and power. Indeed, Sir J. Brunner, the chairman of the Committee, remarked that in his opinion the quality of the gas throughout the country might with advantage be reduced to 8-candle power, and we see no objection to such a change provided that a fully commensurate reduction in price be made and a satisfactory calorific standard be adopted. At present all the gas companies (except the Mond Gas Co.) have power to reduce the calorific value of their gas with impunity, for no reference has been made in any of the Gas Acts to heating value. We have long looked to cheap, low-grade gas to form a smokeless fuel which will bear comparison, even on a purely economic basis, with coal as a fuel for domestic heating and cooking, as well as for industrial uses and power purposes, and material progress in the right direction does at last appear to be about to be accomplished.

Mond Gas for Lighting Purposes.

WHILE giving evidence before a Committee of the House of Commons last week, Professor V. B. Lewes stated that a burner has been invented which will enable ordinary producer gas, such as Mond gas or Dowson gas, to be used for incandescent gas lighting, and that he had seen a mantle heated by such gas emitting a light of over 100 c.-p. It has hitherto been generally believed that producer gas cannot be used for incandescent lighting, owing to its very low calorific power, and the numberless factories and foundries which make their own producer gas will now be able to supply their own lighting installations at a much lower cost than when supplied with coal gas. The lighting efficiency of the producer gas will probably be found to be a little less than one-fourth of that of coal gas, but the cost of producer gas manufactured on a large scale for industrial purposes on the site upon which it is to be used is, in most cases, less than one-tenth the cost of coal gas bought from a neighbouring gas company.

Physical Properties of Brick.

AN elaborate paper, illustrated by photographs, drawings, and diagrams, and accompanied by numerous tables, describing an investigation of the physical properties of brick, under different conditions, was recently presented before the American Society of Civil Engineers. At first sight it may seem superfluous to take so much trouble about so simple a material, but all inquiries of the kind are desirable in the interests of scientific construction. The object of the tests was to ascertain the weak points of a brick, and, as bricks are subjected to compression, tension, bending, shear, and torsion, to a greater or smaller degree, it was decided to test them under all these conditions, and to compare the results. Bricks were also tested in three conditions, natural, filled with water, and reheated, the author having in mind bricks used in dry places, bricks used in wet places, and bricks used again after having passed through a fire. In comparing the tables of strength under different strains, we find the following order of increase in strength, viz.:—Tension, shear, torsion, bending, compression. Of course, tension and compression are the most important tests, and tension is more important than the other, as the tensile strength of a brick is only about one-fortieth of its compressive strength. As to the best kind of brick for use, the tables and diagrams are in favour of reheated brick; and while it would not be economical to prepare bricks in this way, the tests show conclusively that the effect of a fire is to improve the quality of the material. Natural bricks, and bricks thoroughly soaked in water, show about the same results, so that it may be generally assumed that water does not cause diminution of strength.

Arsenical Wall-paper.

ARSENICAL poisoning from a bedroom wallpaper acting on a body weakened by Bright's disease was, according to Dr. Smyth, the cause of the death of a Leyton packer upon whom an inquest was held last week. Many years ago it was discovered that a considerable proportion of the wall-paper in general use contained arsenic, and great care was subsequently taken by the principal paper manufacturers that all colours and other materials used in the production of their papers should be free from arsenic. We do not know whether the long period which has elapsed since the question of poisoning by arsenical wall-paper was a popular topic of discussion has caused the manufacturers to relax their vigilance, but in

any case Dr. Smyth's evidence should serve to remind them of the advisability of retaining the public confidence and of preventing any papers being placed upon the market which are liable to create a scare and injure their trade. It is not commercially impossible to manufacture coloured wallpapers free from arsenic, and only such papers should be sold.

Parishes and Union Boundaries.

AN interesting point was decided in the case of Guardians of Bootle *v.* Guardians of Whitehaven Union (*Times*, May 11). Seascale, which adjoins the parish of Drigg and Carleton, was within the Union of Whitehaven, although Drigg and Carleton are within the Bootle Union. By an order of the Local Government Board confirming a resolution of the County Council, part of the parish of Drigg and Carleton was added to the parish of Seascale, and all Seascale was brought within the Bootle Rural District, but the boundaries of the unions remained unaltered, and the plaintiffs contended that the effect of the Order was not to add part of their union to that of Whitehaven. The court, however, took the view that the effect of this order was to add this portion of the Bootle Union to that of Whitehaven.

The Electric Driving of Machinery.

A PAPER was read to the Institution of Electrical Engineers last week by Mr. Williamson on "The Applications of Electricity in Engineering and Shipbuilding Works." He described particularly the numerous applications of electricity to driving machinery in the works of Messrs. Vickers, Sons, & Maxim, where an aggregate of 22,500 horse-power is in use. Before the introduction of electricity it was necessary to employ a gang of workmen to do odd jobs in the works, such as opening furnace doors, &c. To open one of the heavy furnace doors formerly required six men, now the operation is performed by a small two horse-power motor. To charge a 40-ton Siemens' furnace by hand required four men for four hours, now the same operation is performed in half an hour by the Wellman charger. Also the output is the same in summer as in winter, whereas formerly with hand charging it was much less in the hot weather. The adoption of electricity has considerably reduced the wage costs, and has increased the output. At the same meeting a paper was read by Mr. Chatwood on "Electric Driving in Machine Shops," and he arrived at practically the same conclusions as Mr. Williamson. He took as the basis of his paper the cost of electric-power at Bolton, where motors can be hired at 10 per cent. on their cost, and current can be got by large consumers at practically 1d. per unit. In these circumstances it would nearly always be more to the benefit of the manufacturer to get his power from the supply mains than to generate it himself. In some London districts this is also true, as the supply companies give very favourable terms to power consumers. Mr. Chatwood gave general formulæ, by means of which the relative costs of motor driving and steam driving could be rapidly found. These formulæ are novel, and ought to prove useful. Both papers contain a large amount of data which will be of value to engineers.

Sewage-Filtration.

A REPORT on sewage filtration at Reigate has been prepared by Dr. Thresh, the Medical Officer of Health for the County of Essex, and has been submitted by him to the Sanitary Committee of the County Council. The Report is short and does not give full details of the process of purification. The installation is on a small scale, only "a portion" of the town's sewage being treated. After "slight subsidence"—this is very vague—the sewage is distributed by means of an automatic revolving-arm sprinkler over a primary coke-bed, and the effluent from this is distributed in a similar manner over a secondary bed. The filtering material is 3 ft. 6 in. deep, but no information is given as to the sizes of the pieces of coke. The area of the primary bed is only 38½ sq. yards, and that of the secondary bed 50 sq. yards. The first analyses which Dr. Thresh made were so surprising that he paid another visit to the works, and took samples of the crude sewage, and of the primary and secondary effluents, every five minutes for two hours. All the samples of one kind were mixed, and from the three mixtures thus obtained, the samples for analysis were taken. The results previously obtained were confirmed, the secondary effluent showing a marked loss of chlorides, "proving that the diminution was not due to dilution, but is a natural result of the process of purification." Nitrates were present in the final effluent, and "practically the whole of the ammoniacal matter had disappeared." We may add that the sewage contained "a rather large proportion" of tanning effluent, which rendered it more difficult to treat. In concluding his report, Dr. Thresh strongly commends the method of distributing the sewage over the beds, and advises local authorities in Essex to adopt it, as he is convinced that it will prolong the life of the beds and produce a better effluent than any of the systems of charging now in operation in the county. It would be interesting to know the time which the sewage takes in flowing to the works, and also the rate of flow through the subsidence tank.

The Temple Church.

WE understand that in a Report which he has prepared upon the condition of the fabric Mr. T. G. Jackson recommends that some repairs should be carried out, at an estimated expenditure of about 2,000*l*. The repairs comprise the rebuilding of the bell-turret, the renovation of the west doorway and the arches of the porch, and the fixing of iron ties at the springing of those arches. The three aisles and the circular vestibule of the church were restored in 1825-6 by Sir Robert Smirke. In 1840-2 a reparation of the stonework, as begun by James Savage, architect and surveyor to the two Honourable Societies, was continued, and mainly in accordance with his plans and intentions, by Sydney Smirke and Decimus Burton, in association we believe with Cottingham, who, by reason of some disagreements that arose between Savage and the benchers, had been appointed to carry on the work. During the interval the stained glass windows, by Willement, were inserted. On that occasion, however, it seems that an unsuitable kind of stone was employed for the exposed portions. The decay of the stone, accelerated by the impurities of the atmosphere, is now so far advanced that some remedial measures are necessary. Beyond that, no structural damage is apparent, nor is the safety of the fabric in any degree endangered. About forty years ago Mr. St. Aubyn effected a further renovation of the western part of the church and the conical roof. A print by Malton shows that the west doorway and its porch were formerly encumbered with a block of chambers, having two floors.

Miss Ida Lees's Exhibition.

AT Messrs. Dowdeswells' Gallery there is a collection of oil paintings and drawings, under the title "Moonlight and other Night Effects," by Miss Ida Lees, a lady who seems to have taken up specially the study of moonlight and lamplight effects. One has always a little suspicion of this type of art, as it has often been made the occasion for appealing to the public by means of "stagey" effects of light which catch the eye, and which are not very difficult to produce. In the present instance, however, the small oil paintings, which are the best part of the show, do give evidence of a careful study of actual effects. In "The North Gate, Salisbury" (40), the mingled effect of the street lights and the light from the concealed moon seems very true; so is the street effect in "Church Square, Corfe" (53) with the lighted-up shop windows throwing a bar of light across the street; and perhaps still better is "A Padstow Steamer" (47) passing at night, with her mast and side lights, and the hull and funnel only just visible. There is always a temptation in such scenes to show too much, and thereby lose the night effect, but this has really the effect of steamers that pass in the night. "The 'Portslade' Coming into Shoreham Harbour" (49) is also good in the same way, but not quite equal to No. 47; "Winter" (44) owes its effect to the reticence of the artist—to the little that is shown; in "The White Cottage" (56) there is a poetry in the ghost-like house just discernible, and its two faintly-lighted windows. The mistake in several of the pictures is the exaggerated size of the moon, which, to put it technically, subtends far too large an angle in the picture in most cases, and in Nos. 38 and 39 this exaggeration is so great as to be absurd. If Miss Lees will get one or two photographs of a landscape with a moon in it, she will see how small the moon really is, with reference to the angle included in the scene, in comparison with the scale represented in her pictures.

Holland Fine Art Gallery.

A COLLECTION of pictures by the well-known Dutch sea-painter, Herr Mesdag, is on view at the Holland Fine Art Gallery. There is, as might be expected, a certain amount of sameness and repetition of effect in a number of these works when seen collectively, for Herr Mesdag paints mostly one kind of scene and effect; rough sea handled in a very broad, free, and masterly manner, and broad blunt-nosed Dutch fishing craft. It is all excellent work however; among the best are some of the smaller ones — "Homeward Bound" (3), "In Danger" (7), "Storm" (25); the latter a fine gloomy sketch, hardly more, of a threatening sky and sea. "Early Morning" (14) is a variation from the artist's usual style of

subject, a calm sea and the light of the dawn in the distance. Mrs. Mesdag van Houten contributes three pictures to the collection; two small flower-pieces of fine colour, and a remarkably bold and broad landscape sketch under the title "On the Dunes."

Nesfield's Drawings at the Institute.

MEMBERS of the Royal Institute of British Architects owe much to those who placed before them such a valuable collection of drawings as were shown at the President's "At Home" on Monday last. The late Mr. W. Eden Nesfield's executed works are so well known to every one that a little insight into his methods of expression on paper is of the utmost interest and value. The first impression conveyed by a general look round is appreciative of the importance of his works, the variety of subjects, the reasoning of Gothic and Classic influences, the minuteness of his care, and, finally, the marked individuality existing throughout. All his working drawings show the infinite pains he took over every detail, and the small perspective which is often introduced into the contract drawings illustrates his anxiety to show his work to the builder as he saw it, and to convey to him, as far as possible, the feeling and character in which he wished him to work. One of his most important works is the addition to Combe Abbey, done at the outset of his career. These are a most fascinating set of drawings done entirely by his own hand. The 8 in. scale drawings have the stamp of a capable enthusiasm combined with an appreciation of the care necessary to govern it. The full-size iron-work details of oven, fire-dogs, spit, and other fittings, are full of interest, and express a thorough knowledge of the nature and treatment of the material. In handling a remodelling problem his genius is shown at its best; and the drawings of Babbacombe, Lea Wood, and Gloddaeth, were perhaps the most interesting contributions to the exhibition. The happy manner in which Nesfield associated himself with the old building and searched out for its utmost possibilities, is the secret of his successful solution. In his minor works the same interest is taken, and nothing could be more charming than the drawings of butcher's shop and cottages at Hampton-on-Arden, or the signboard at Old Hall, Sandbach. The Institute is to be congratulated upon securing such drawings for exhibition, and the privilege of viewing them is one which must be deeply appreciated by the members.

ARCHITECTURE AT THE ROYAL ACADEMY.—II.

ECCLESIASTICAL architecture is pretty largely represented this year, though the larger proportion of the drawings of this class, and many of the most prominent and important, do not illustrate executed work, or work to be executed. The Liverpool Cathedral competition naturally furnishes its contribution, six of the competitors being represented here by eleven drawings. Among these are two elevations and the plan of Professor Pite's design, called in the catalogue, as it was in the competition, "Design for an Anglican Cathedral" (1,677, 1,690), but of course at once recognisable. This fine design was illustrated in our issue of October 18, 1902, by reproductions from some of the original drawings, and further by a perspective view made by our own artist, published in the New Year's number for 1903, so that we need not describe it further. Considering that this design was passed over by the assessors in the competition without a word, although "honourable mentions" were bestowed upon designs far inferior to it, one is glad to find it placed on the line here, under the direction (as is supposed) of one of the same assessors who could see nothing in it before. A remarkable design by Mr. Skipworth is shown in two drawings (1,677, 1,680), a perspective taken at the West-end, and a side elevation. The plan is one with passage aisles only; it may be questioned whether this type of plan, however suitable and practical for an ordinary-sized Congregational church, has anything like the same dignity of effect, for a cathedral interior, as is furnished by the three aisles on the usual proportion. The crossing is occupied by a vast octagon, treated externally in a very bold and original manner, in three stages; the first a mass of plain walling; the next, of about the same height, decorated with a kind of order of very free type of design, with columns partially decorated near the top by slightly indicated spiral lines; the third stage has a window with a kind of canopy in the centre of each face, while at the top, just under the coping, a small wall arcading is carried all round. The level line of the coping terminates the structure; something more seems to be wanted, but nevertheless this feature would have a fine and striking effect in execution, and is at all events original. So is the west end, with its massive and deep buttresses, one of which cuts the centre of the central archway and carries a central turret above; this position of the buttress seems a somewhat forced attempt at novelty, hardly to be commended, but the general effect of the grouping, with its base of alternating courses of dark and light stone, and the mass of plain walling in the upper portion, is certainly picturesque and effective. In another part of the room is shown the proposed interior perspective of the same design (1,566) which suggests to a certain degree a reminiscence of Siena, only that the black and white work is confined to the lower parts of the piers and to the arches, instead of being carried all over the building. The piers which mark the aisles are octagonal in the lower portion, and in the upper part show the same slightly marked spiral treatment which occurs on the exterior of the octagon; the connexion to the main wall, by an impost with partially gilded carving and a small open arcading under it, is a charming piece of architectural detail. The whole is roofed by a vault with moulded ribs in light and dark work, and the wide wall arches carried from impost to impost of the piers are treated in the same manner. It is a striking and original interior and perhaps the best part of the whole design, the author of which, in our opinion, ought to have had the opportunity of entering in the final competition for the cathedral.

Mr. Corlette's design for the Liverpool Cathedral is shown in perspective views of the exterior and interior (1,670, 1,672), a small plan being added. It is a five-aisled plan in a sense, but the outer aisles are only passage-aisles. The exterior is a rather rough but very bold and effectively tinted drawing, showing a design of considerable power, the defect of which is that the buttresses are overdone—it seems all buttress, great masses up the angles and centres of the western towers, without a break till they come to a set-off near the top; and the effect is to give these towers a somewhat hunched-up appearance, as if they were too high in the shoulder. The centre tower, with its subordinate features at the angles, is much more successful and would have a fine effect. This is anything but a commonplace design, but the author seems to have over-reached himself in an effort after an exceedingly solid and massive effect, and has not realised where to stop in this aspiration. The interior is in a more restrained style, with a plain vault with the inter-spaces coloured. Mr. Walley's design (1,683, 1,685) we take to be that of a young man; it is a very ambitious piece of rather restless Gothic, creditable as such, but not that one could imagine being carried out. The east end composition is not improved by cutting away so much of the solid of the buttresses and separating them from the main wall; a bad treatment both in a practical and a picturesque sense. Mr. A. D. Sharp's design (1,682) is an ordinary modern Gothic design presenting nothing special for blame or praise; the treatment of the upper part of the towers is the best portion of it. Lastly, we have Mr. Leonard Stokes's picturesque and original design, which we fortunately have other means of judging of (it was illustrated in our issue of November 8), since it is so thoroughly skied that no one could make anything of it in its present position. This also is an able design which seems to have spoken in vain to the assessors, and is apparently no better appreciated at the Academy.

From designs for a modern cathedral we turn to one for putting a new face on an ancient one, that by Mr. J. Oldrid Scott for the west front of Hereford Cathedral (1,644). This is intended, evidently, to supersede the work of the ill-omened Wyatt, who in 1786 was called in after the fall of the west tower had ruined part of the west front, and availed himself of the opportunity to shorten the nave by one bay, to remove a good deal of Norman work, and make a west front of his own wretched Gothic. The present design is of course strictly orthodox Gothic; there is no attempt to make it look like a modern addition; a point on which many people hold strong opinions nowadays. But there is something to be said for consistency of architectural design, after all, and we do not know that, in supplying a façade which has been destroyed, there is really any better or more fitting course than to adopt the style of the existing remainder of the building, or, if a mediæval cathedral, its contiguous portions. Mr. Scott follows the exterior of the nave, and adopts late fourteenth-century Gothic, ignoring the Norman nave arcade of the interior. The design gives the impression in the drawing of being rather heavy in its mouldings and other details, but this may be because the scale is smaller than in most of our cathedrals, and there is nothing in the drawing to scale it precisely. Generally speaking, it seems to be a satisfactory piece of orthodox Gothic, only we do not particularly like the change from square to octagonal in the flanking turrets, by the introduction of long broaches; a feature much more suited to the base of a spire, where they lead up to its raking lines, while here they contrast rather harshly with the vertical lines. Another exhibit of Mr. Scott's, showing the north transept of St. John the Baptist Church Norwich (1,494), is a pleasant piece of Gothic perspective in the old style, recalling the days of Street and G. G. Scott.

Among other church designs is Mr. Warren's "St. Peter's Lowestoft" (1,461), a severely treated brick church with a passage-aisle plan, over which project the buttresses, the upper portions of which are carried up the walls to end in a series of heavy solid gabled terminations. The principal windows are round arched with stone heads and tracery; the aisles are lighted by small round-headed windows. A small octagon stair-turret is the only variation from the generally plain and severe character of the design. Two large drawings hung at angles of the room (1,646, 1,507) show Mr. C. H. Reilly's idea of a "Design for a Cathedral." This is Classic, and to some extent based upon St. Paul's—especially so in the interior; the exterior shows an immense mass of rusticated walling up to the line of the main cornice, with an attic above which is rather too heavy and too much broken up in line; but if, as we surmise, this is by a young hand, there is a great deal of promise in it, and both drawings are finely executed. The "Church School and Cottage at Troon" (1,546) owes its place on the line, we should suppose, to its being shown in a good water-colour drawing, for it is of little interest in any other sense; an example of the extent to which mere drawing counts in the hanging of the architectural designs. Mr. W. J. Tapper's "Interior of a Town Church" (1,552) is, as may be supposed, of more interest. Is it intended for concrete? It has rather that appearance, since mouldings are scarce and the interior buttresses are square masses with no appearance of masonry jointing. It is a one-span church, the buttresses pierced for passage aisles, and the principals consisting of solid pointed arches springing from them. It is rather bare-looking as an interior, but there is an idea in it. Near this is Mr. Goldie's elaborate drawing, hung too high to be well seen of the "High Altar and Reredos, Hawkesyard Priory" (1,573), a built reredos of the type of Winchester and St. Albans, filled with niches and sculpture, but broken in the centre by a square bay which rises high above the rest, and behind which is a blue ceiling painted with figures of angels. It seems a rich piece of work, but the details cannot be made out. Mr. Bodley's "Design for a Tomb for the late Canon Carter" (1,578), intended for Clewer Abbey,

is illustrated in a very well executed water-colour drawing. It is in Late Gothic style, with elaborately carved wooden traceried sides and canopy, a figure of an angel on the canopy at each angle. Below is a stone tomb, white stone or marble with a black marble base and surbase, the sides divided up by small buttresses and triangular-headed niches containing escutcheons; this forms the most characteristic portion of the design; the remainder is imitative Gothic work, very well carried out. In the interior of the "Church of St. Paul, Wood Green" (1,585) Mr. Goldie shows a plain Romanesque church of massive character, completely a reproduction of eleventh-century architecture as far as the stonework is concerned; there is a good painted timber roof with principals and tie beams decorated in a simple and effective herring-bone pattern. It is a pity that there was not an attempt to do something a little more original with the substructure, for this severe round-arched style, with no ornament of its own, is a very good basis to work further upon. Mr. Prynne's "New Church, Belvedere, Kent" (1,583), of fourteenth-century detail with a pointed wooden barrel vault and one of his favourite stone tracery chancel screens shown in the distance, is probably not well represented in the perspective; the openings of the arcade seem too wide, and probably the church looks better in execution than it does in this drawing.

"L'Art Nouveau" is represented in Mr. Wheeler's chapel for the Consumption Hospital at Northwood (1,587); walls partly red and partly green, looking in the drawing like glazed surfaces; the return wall across the chancel opening, with steps up the centre, is of a yellower tone, and carries wooden uprights with some kind of decorative termination in blue, carrying a rood-beam or something in the place of one. It is a good water-colour drawing, and the effect is pleasing but perhaps wanting in dignity and repose, for a chapel. Mr. Hutchinson's "Design for the West End of a College Chapel" (1,619) is evidently intended for a Roman Catholic college in a disturbed district, where the church may have to be used as a fortress. The front is flanked by battlemented towers of solid masonry only broken by arrow slits, and roofed with copper domes; the whole of the front is in this castellated style, with a deep unmoulded pointed arch in the centre, where we almost expect to see a portcullis. On the faces of the two inner turrets are bronze conventional sprays flattened against the walls; and the whole is crowned by a bronze Calvary with the three figures on crosses standing up against the sky. It certainly does not give one the idea of a college chapel; but it is nevertheless a bold and original architectural conception, and more interesting as such than two or three other church designs of more orthodox character, with which no fault can be found, but which on the other hand present no new or original idea.

THE INTERNATIONAL FIRE EXHIBITION, EARL'S COURT.—I.

FIRE prevention and fire extinction are interesting subjects, and a really representative exhibition of methods of fire-resisting construction and of apparatus for "fighting the flames" could hardly fail to be instructive and popular. It is perhaps too early to say whether the exhibition at Earl's Court will prove to be truly representative, as there are still a great many vacant spaces, but that it contains much of interest cannot be denied. Indeed, the fact that it has been "organised under the auspices of the British Fire Prevention Committee" is a sufficient guarantee that at least architects and builders will find in it some valuable object lessons and some useful information. An attempt has been made to arrange the exhibits in two main divisions, the first being described in the catalogue as the "Historical and Art Loan Exhibition," and the second as "Industrial Exhibits," but the attempt is not entirely successful even in the catalogue, and in the exhibition itself it is a failure. The loan exhibits are not numbered, and many of them are scattered about among the industrial exhibits—apparently for the purpose of filling vacant spaces—with the result that it is almost impossible to find any particular loan. It is to be hoped that some sort of order will gradually be evolved out of the chaos. The industrial exhibits are more conveniently arranged, but even here the visitor's convenience has not been studied as it ought to have been. Surely the Earl's Court directors know that the catalogue of an exhibition of this kind ought to contain a plan showing clearly the number of every stand; when this is done, the visitor can easily find any particular exhibit.

To describe the exhibits in the order in which they are given in the catalogue would be confusing. We propose, therefore, to classify them, and in this article some of the exhibits of fire-resisting construction in the industrial section will be considered. In the German Court, at Stand No. 1, the Eggert system of fireproof flooring is shown by means of a flat slab about 30 ft. span. We could not obtain any description of the system, but the slab is formed with somewhat porous black bricks, 4½ in. thick, covered with concrete 5½ in. thick. Probably steel is embedded in the concrete. The temporary wood staging on which the floor was laid is still in position. Other fire-prevention exhibits ought to be on view at stands 17 and 20, but we could not find them. At No. 22 the "Terrast" system of concrete flooring is shown. It is both simple and ingenious, and can be used with wood or iron joists. One specimen has steel joists about 3 ft. from centre to centre, and another has wood joists, 9 in. by 2 in., and 17 in. from centre to course. In both cases coarse wire netting is laid over the joists, so as to sag down between them to a depth of about 1½ in.; the netting is then covered with brown paper, and on this the concrete is laid, the upper surface being flat and the lower surface in each bay being an inverted arch. The thickness of the concrete over the joists is about 1½ in., and in the centre of each span about 3 in. The joists themselves are not protected in any way. J. B. Schroer, of Dortmund, shows at No. 26 some artificial stonework for chimneys, which are designed to prevent chimney fires. The stones for the shafts are about 18 in. square and 6½ in. in height, and have a 10¼-in. circular flue and eight oval perforations around this forming air cavities. Stands 27 and 34 are also supposed to contain fire-prevention exhibits, but cannot yet be found. No. 25 contains a number of illustrations of the "Prüs" partition walls, but the exhibit is not yet complete.

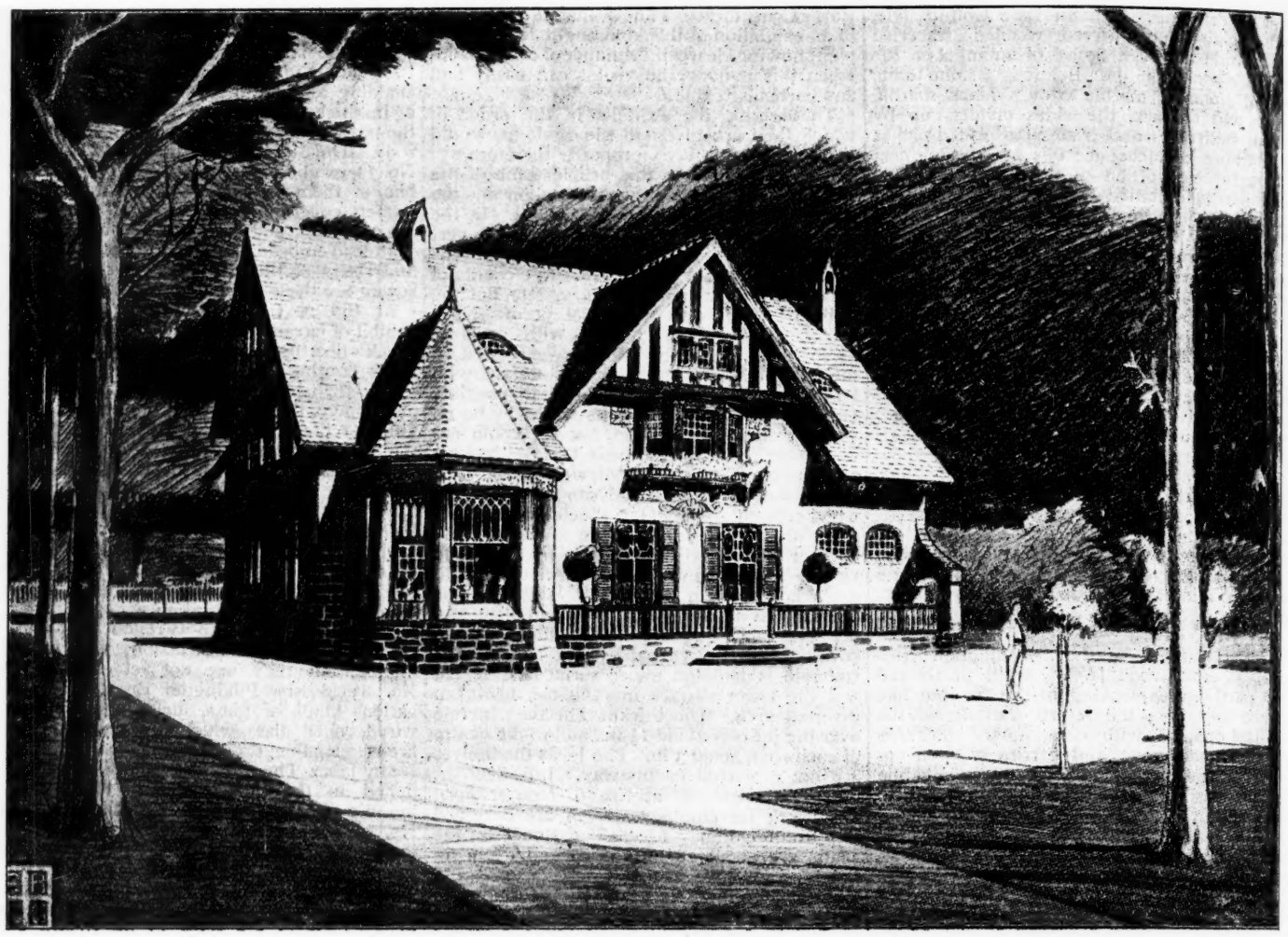
In the Queen's Palace, Stand No. 52 contains a large inscription—"Site of the Pavilion of the Fire Prevention Building Co.," &c.—but nothing more. No. 56 (left blank in the catalogue) is occupied by the exhibits of the Marmorite Artistique Syndicate; these consist of signboards of marmorite, very cleverly designed, the surface finished with glass of various colours and laid to form patterns in very low relief. At the next stand some brick partitions are shown, but the exhibitor's name is not stated either at the stand or in the catalogue. Some of the bricks are glazed, and measure 9 in. by 3 in. on the face and 2⅝ in. thick; a shallow groove is formed in the beds and ends, and there are also two vertical oblong holes through each brick. The unglazed bricks are 11 in. by 6½ in. on the face, and 1⅞ in. thick, each brick having four vertical circular holes through it, and a semi-circular groove at each end. These bricks are made with plain surfaces, or with shallow sinkings to afford a key for plaster. The finished thickness of the plastered partition is only 2½ in. The British Uralite Co. (No. 62) exhibit a pavilion—now in course of construction—with a framework of wood, covered with sheets of uralite. This is a fire-resisting composition pressed into sheets about ⅛ in. thick, and finished with paint or distemper or with wood veneers.

Another incomplete exhibit is that of Messrs. Drew-Bear, Perks, & Co., Ltd. (No. 64). There are two small steel trusses of ordinary type, and a floor with steel girders and wood joists—also of ordinary type and without any claim to fire-resistance. The model of the steel work of the auditorium of the King's Theatre, Hammersmith, is more interesting. The "Fram" fire-proof floors and partitions are shown by Mr. Rud. A. Stoffert at No. 71. The floors have steel joists about 3 ft. 3 in. from centre to centre, and between these are fixed concrete blocks with flat tops and arched and corrugated soffits, jointed at the crown. The blocks are about 2 ft. long, 7¾ in. thick at the joists, and 4 in. thick at the crown, and may be finished with cement or covered with boards. The partitions are formed with solid pressed slabs 2¾ in. thick, which appear to consist principally of plaster of Paris; the ends are hollowed and rounded to form a stronger joint. When plastered on both sides, the partitions are 3¼ in. thick. Messrs. Van der Vygh Bros., of Amsterdam (No. 73) exhibit the "Phœnix" fire-resisting plates; some of these are 1 in. thick, and are nailed to wood studding and finished with plaster; others are 2¾ in. thick, and are fixed without woodwork, the slabs being united by ¼-in. vertical iron rods. The St. Pancras Ironworks Co., Ltd., at No. 77, exhibit some well-made iron staircases, one of them having what are described as "safety concrete fireproof treads." The treads are 2 in. thick, and consist of steel and concrete, with lead embedded in the surface. The strings and risers of the stairs are of iron, and in a severe fire these would almost certainly fail.

At the next stand there is an excellent exhibit of jarrah and karri posts, beams, rebated plank flooring, match-boarding, panelling, block flooring, &c. Some of the posts tested by the British Fire Prevention Committee are also shown, the heart being thoroughly sound, although the outer portion had been burnt. In the test, the plank flooring, which was 2½ in. thick, was proved to be the least satisfactory part of the construction, and even this did not allow the flames to pass through until the fire had been burning for eighty-four minutes; probably a double floor of the same total thickness would have given better results. The main timbers were reduced by the fire about ½ in., and were charred to a depth of ⅜ in. At stand No. 81 two French systems of "ferro-concrete" construction will be exhibited, but they are not yet on view. At No. 83 Messrs. Pilkington Bros., Ltd., show various kinds of glass, including their patent wired, rolled glass, which is certainly a better fire-resister than ordinary glass.

Mr. Jabez Thompson's exhibit is not mentioned in the catalogue, and there is no number attached to it, but we believe it to be No. 98. Mr. Thompson shows his "patent terrawode brickwood" blocks for partitions, some of which are 8⅞ in. by 3⅛ in. on the face and 4¼ in. on the bed, with two shallow grooves on each face to afford a key for the plaster; others are slabs 12 in. square and 2 in. thick, with V-shaped tongues and grooves at the ends. The material is very light and appears to be a good fire-resister. At No. 101 Mr. R. B. Boxby exhibits the "Koenens uniform resistance fire-proof flooring." We presume that this is a concrete and steel arch 24 ft. span, near the middle of the hall, but cannot be certain as this exhibit contains neither number nor name. The arch rests on four concrete-cased steel stanchions, and is constructed of concrete in which (as far as we could learn) ⅜-in. steel wires are embedded. The upper surface is flat and the thickness is 19 in. at the ends and 5½ in. at the centre of the span. Mr. Howard R. Justice, M.I.M.E. (No. 103) exhibits the "Hayes patent fire-proof sheet-steel lathing" and various methods of applying it to partitions, floors, columns, &c. The lathing has >——< shaped slits cut through it, and the edges around the slits are curled back, affording an excellent key for the plaster. Messrs. Homan & Rodgers (No. 105) show some constructional steelwork, and two kinds of fire-resisting flooring. The first has steel joists 4 ft. 6 in. from centre to centre, through the webs of which transverse tension rods are passed, the whole being then embedded in concrete. In the second system the steel joists are 18 in. from centre to centre, and hollow fireclay bricks are laid between the lower flanges and then covered with concrete above and with plaster beneath. The exhibit of the New Expanded Metal Co., Ltd. (No. 108) is still incomplete, and much of it is concealed by a canvas screen; the principal feature appears to be a building about 30 ft. by 20 ft., constructed with a steel framework, to which expanded metal is attached, this being covered with ordinary plaster, or with cement, or with roughcast.

At No. 109, the Eavis Fireprcof Materials Co. show ordinary fibrous plaster slabs, wire-lined slabs, and the "Hercules" partition blocks. The last are 36 in. by 18 in. on the face and 2⅜ in. thick, and have smooth surfaces so that no plastering is required. Stiffness is obtained by interlocking beds, and by rope-like grooves in the ends, the grooves being run full of plaster in the course of construction. Glass-faced plaster bricks are also shown, measuring 7½ in. by 3 in. by 2½ in. thick; each brick has four vertical circular holes and a semi-circular groove at each end; the bricks are fixed by pouring plaster into the holes and grooves. Messrs. Visintini & Weingartner (No. 114)



"Haus Rüdigsheim," Thorn (Berlin). Messrs. Erdmann & Spindler, Architects.
(From the *Berliner Architektur-Welt.*)

exhibit what they term "lattice or truss girders of concrete with iron inlaid." These are of the Warren type about 21 ft. long, 10 in. deep, and 8 in. wide; in the bottom boom two $\frac{3}{8}$-in. rods are imbedded, and in the top boom two $\frac{3}{16}$-in. rods; each brace also contains two $1\frac{3}{16}$-in. rods, which are attached to those in the top and bottom booms. The concrete of the bottom boom is about $1\frac{5}{8}$ in. thick, that of the top boom $1\frac{3}{8}$ in., and that of the braces 1 in. We were not able to obtain any particulars as to the strength of these girders.

Other exhibits of fire-resisting construction will be found in the Imperial Court, but these must be reserved for another article.

TWO GERMAN VILLAS.

THE two illustrations of villas designed by MM. Erdmann and Spindler, of Berlin, appeared in the last issue of the *Berlin Architektur-Welt*. They are curiously different, as coming from the same architect; the difference in the method of illustration may have something to do with this. The "Haus Rüdigsheim" is a pleasing and unpretentious design; the villa at Godesberg illustrates the modern German tendency towards restless and eccentric ornament.

ARCHÆOLOGICAL SOCIETIES.

ANTHROPOLOGICAL INSTITUTE.—At a meeting of the Anthropological Institute held on the 5th inst., Mr. A. L. Lewis, F.C.A., the Treasurer, read a paper on "Some Stone Circles in Derbyshire." Mr. Lewis first dealt with the Arborlow Circle which has recently been excavated by Mr. Gray under the auspices of the British Association. Like the Avebury Circle, Arborlow is surrounded by an embankment outside a ditch; the latter, therefore, was obviously not intended for defensive purposes. All the stones are now flat with the exception of one, which is leaning, and in consequence it is extremely difficult to fix the circumferential line or diameter. The general plan, however, is oval. Mr. Lewis was of opinion that in the centre there was a group of three upright stones, opening to a point somewhat north of east and facing probably to the Beltane sunrise. A skeleton—apparently a late interment—was found in the centre, but part of the embankment on the south-east was formed into a tumulus in which was an interment of the Bronze Age. Mr. Lewis was of opinion that sepulture was no part of the original purpose of the monument. Mr. Lewis also referred to other Derbyshire circles, including the "Wet Withins" and the "Nine Ladies." With regard to the latter, he was of opinion that the term "nine"—as applied to standing stones—simply meant "holy," and in support of this view he cited several instances of the sacred or mystic significance of the number.

COMPETITIONS.

UNIVERSITY OF THE CAPE OF GOOD HOPE.—The following is the assessor's Report on the competitive designs for University buildings for the Cape of Good Hope:—"I have carefully considered each of the sixty-two designs submitted in this competition, amongst which are a large number of very excellent designs. A great variety of treatment is shown, both in the architecture and the planning. I am of opinion, taking plan and elevation together, and with a due regard to the conditions of the competition, that the design marked No. 35 is the best and entitled to the first premium. It is an excellent design, well and economically planned. And I place No. 30 as second, and No. 24 as third.—ASTON WEBB." The following are the names of the authors of the designs:—No. 35, Mr. W. Hawke, A.R.I.B.A., London; No. 30, Mr. J. Edwin Forbes, Birmingham; No. 24, Messrs. E. W. Wimperis and Hubert S. East, London.

LIVERPOOL CATHEDRAL.—It was freely stated in Liverpool on the 11th inst. that the assessors (Mr. G. F. Bodley, R.A., and Mr. R. Norman Shaw, R.A.) had given their award in connexion with the five competitive sets of designs for the proposed Cathedral. We were officially informed, however, that the award has not yet been given, but that it will probably be delivered to the committee at the next meeting, which stands fixed for Friday.—*Liverpool Mercury.*

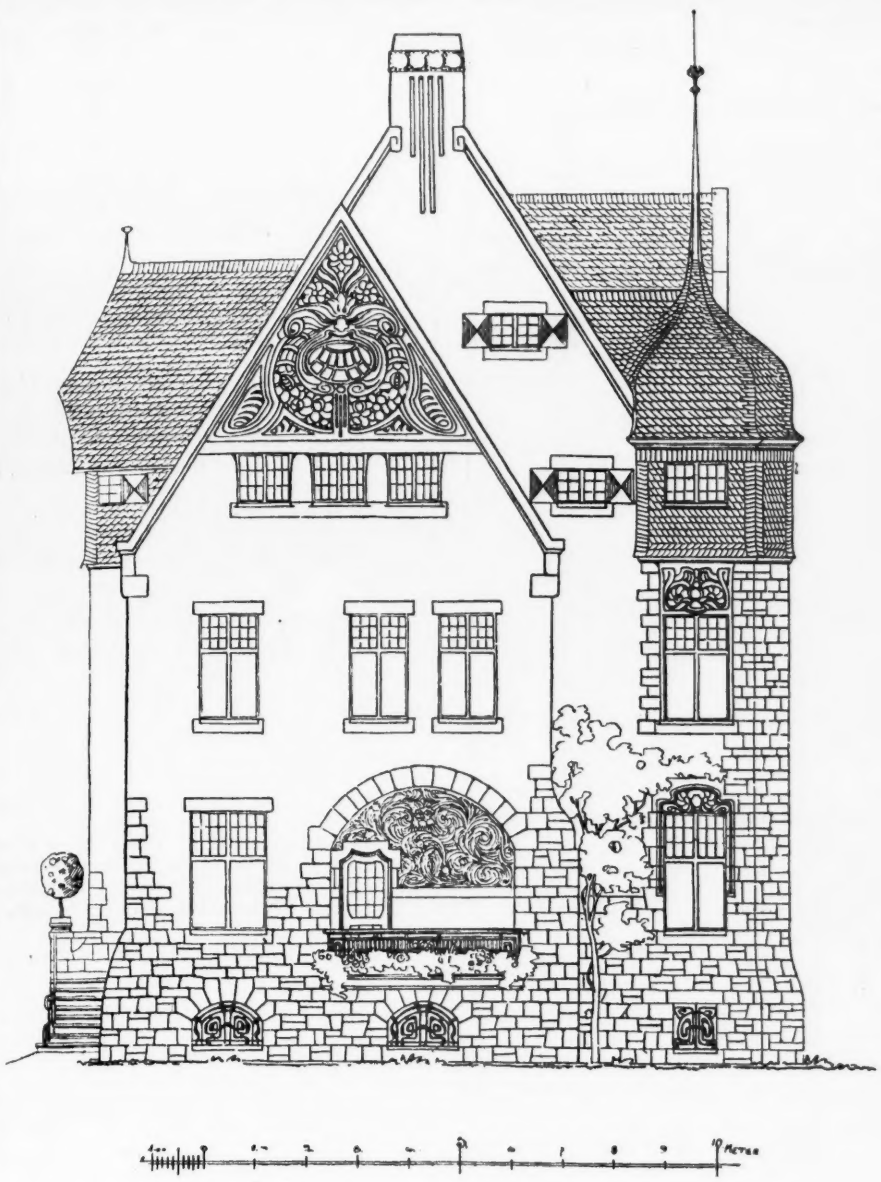
WESLEYAN CHURCH, LEEDS.—In a limited competition for the erection of Wesleyan church, Sunday school, and other buildings intended to be erected at Cross Flats, Leeds, the trustees have awarded the first premium to Messrs. Danby & Simpson, architects, Park-row, Leeds, and have appointed them to carry out the same; the estimated cost of the buildings is 9,000*l.*

HOSPITAL, MANCHESTER.—The competition for New Hospital, Quay-street, Manchester, has resulted as follows:—First premiated design, Messrs. Thos. Worthington & Son, Brown-street, Manchester; second, Messrs. C. K. & T. C. Mayor, 41, John Dalton-street, Manchester; third, Messrs. Mee & Hooley, 32, Victoria-street, Manchester.

FREE LIBRARY, MUNICIPAL OFFICES, &c., RAWTENSTALL.—The Rawtenstall Corporation have appointed Messrs. Butterworth & Duncan assessors in a competition for a free library, Municipal offices, and Town Hall, which they propose to erect on a site in the centre of the town, at a cost of over 30,000*l.*, and for the plans of which they propose to offer premiums of 100*l.*, 50*l.*, and 30*l.*

WESLEYAN CHURCH BUILDINGS, OTLEY.—In a limited competition for the erection of Wesleyan church buildings, lecture hall, Sunday school, &c., at Otley, at an estimated cost of 5,500*l.*, the design sent in by Messrs. Danby & Simpson, architects, of Park-row, Leeds, has been accepted. The buildings will be of stone and to harmonise with the adjoining chapel.

STUDENT'S COLUMN.—The articles commenced in this volume on "Builders' Tools and their Uses" have been unavoidably suspended owing to circumstances that could not have been foreseen. The subject may be taken up again on another opportunity. The "Student's Column" will be resumed at the commencement of next half-year's volume with the treatment of a very important constructional subject.



Villa, Godesberg-on-the-Rhine. Messrs. Erdmann & Spindler, Architects.

(From the *Berliner Architektur-Welt.*)

[*See opposite page.*

ENGINEERING SOCIETIES.

CIVIL AND MECHANICAL ENGINEERS' SOCIETY.—At a meeting of the Civil and Mechanical Engineers Society, held at the Caxton Hall, Westminster, on the 7th inst., Mr. C. E. Strohmeyer, M.Inst.C.E., chief engineer to the Manchester Steam Users' Association, read a paper on "The Choice of Steam Boilers." In the course of his opening remarks, the author pointed out that his predecessor, Mr. Lavington Fletcher, found it necessary some years ago to make careful examination of the different types of boiler then in use, with the result that the Lancashire boiler was decided to be the most suitable for general use. In the present day, the same type of boiler was still largely used, but the introduction of higher pressures had led to the introduction of many novel types of which the design was not always so safe as might be desired. The author said that, as an old sea-going engineer, he was favourably inclined towards the marine type boiler with return tubes. These boilers were less efficient than Lancashire boilers with economisers, but more efficient than Lancashire boilers alone; they were much more expensive, although only occupying about half the floor space. Water-tube boilers were difficult to deal with. To begin with, there were no less than fifty-eight different types. Another difficulty was that all such boilers were monopolies, and the patentees generally made the most of good points, and the least of any defects that had come to their knowledge. As a general rule, water-tube boilers were unsuitable with sedimentary feed, and where the water was not pure they should be accompanied by a water-purifying apparatus. Alluding to the claim that water-tube boilers were quick steam raisers, Mr. Strohmeyer called attention to the fact that no boiler responded more readily to modern demands for steam than did the Lancashire boiler, with its large water volume. An important matter, and one which should not be overlooked when selecting a type of boiler, was that of general economy. This part of the subject was said by the author to be somewhat intricate, so much so that he would be unable to do more than give a general summary of the chief points. After discussing heat losses by radiation and through the chimney, the efficiency of firing, the ratio of heating surface to water evaporation, the supply of air for combustion, and the question of double-combustion, the author expressed the opinion that, as matters stood at present, Lancashire boilers with economisers were, without doubt, the most efficient steam generators as regards economy and up-keep, but they occupied much floor space. Marine boilers without economisers were nearly as efficient, and seemed to require practically no repairs; they occupied about half the floor space required for Lancashire boilers, but cost considerably more. Economic and water-tube boilers were practically on a level as regarded economy and floor space, but in both cases the heavy brickwork was a constant source of expense not incidental to the two other types; and water-tube boilers had the additional disadvantage that, except when lightly worked with non-sedimentary and non-greasy water, troubles were experienced with the tubes, which, without counting the time wasted in stoppages, were a source of considerable expense.

BIBLE CHRISTIAN CHAPEL, PLYMOUTH.—A new Bible Christian chapel, Plymouth, has just been opened. The architect was Mr. H. J. Snell, and the contractor Mr. J. Paynter.

APPLICATIONS UNDER THE 1894 BUILDING ACT.

THE London County Council at their meeting on Tuesday dealt with the following applications under the London Building Act, 1894. The names of applicants are given between parentheses:—

Camberwell, North.†—A car shed at the Camberwell tramways depôt on the south side of Medlar-street, Camberwell, at less than the prescribed distance from the centre of the roadway of the street (Mr. E. J. Edwards for the Highways Committee of the Council).—Consent.

Lines of Frontage and Projections.

Wandsworth.†—The retention of a house on the south side of Howard's-lane, Putney, abutting upon Upper Parkfields (Mr. J. C. Radford for Mr. C. S. Merreth).—Consent.

Hampstead.†—Three houses with shops on a site on the eastern side of Edgware-road, Hampstead, to abut also upon Maygrove-road (Messrs. Done, Hunter, & Co. for Mr. H. Neal).—Consent.

Hammersmith.—A building on the north side of Great Church-lane, Hammersmith, westward of No. 47 (Mr. T. Kissack for Messrs. Fullers, Limited).—Consent.

Hampstead.—An iron and glass shelter over a portion of the enclosed forecourt of No. 143, Abbey-road, Kilburn (Mr. W. Daniell for Mr. W. Gunn).—Consent.

Newington, West.—A two-story coach-house and stable at the rear of No. 66, Camberwell-road, Newington, to abut upon Grosvenor-street (Mr. G. Trotman for Mr. W. Simmonds).—Consent.

Wandsworth.—A building on the western side of Roehampton-lane, Putney, northward of Manresa House (Mr. D. Blow for Mr. H. Smith).—Consent.

Hampstead.—Buildings on a site on the south side of West End-lane and east side of Mill-lane, Hampstead (Mr. C. H. B. Quennell for Mr. A. Bretzfelder).—Consent.

Hampstead.—Buildings on the east side of Fortune Green-road, Hampstead, to abut also upon Weech-road (Mr. C. H. B. Quennell for Mr. C. Pain).—Consent.

Width of Way.

Hackney, North.—Two two-story additions to the rear portion of block of flats, Church-path, Albion-road, Stoke Newington (Mr. A. P. Osment).—Consent.

Mile End.—The retention of a temporary brick and iron church at the rear of 381, Mile End-road, Stepney, at less than the prescribed distance from the centre of Lawton-road (Rev. W. Donlevy).—Consent.

Hampstead.†—New Hampstead hospital, Haverstock Hill, Hampstead, with boundary fences at less than the prescribed distance from the respective centres of a footway known as Hampstead Green, and of a roadway leading to the North-Western Hospital (Messrs. Young & Hall for the Committee of the Hospital).—Refused.

Space at Rear.

Wandsworth.—A modification of the provisions of Section 41 of the Act with regard to open spaces about buildings, so far as relates to the proposed erection of an addition to the stable building on the eastern side of Keswick-road, Wandsworth, southward of Upper Richmond-road (Mr. A. E. Chasemore for Mr. H. Kimber, M.P.).—Consent.

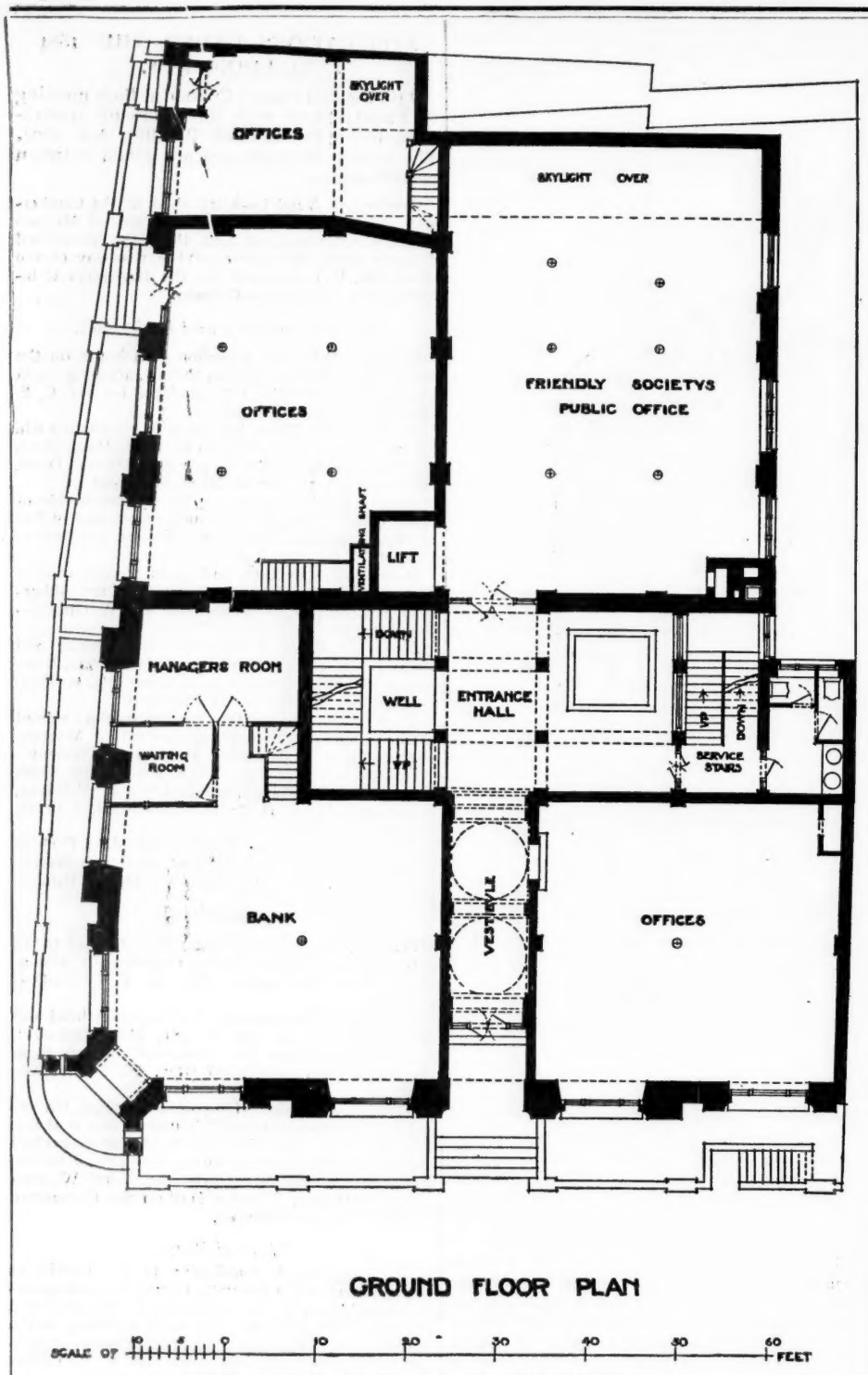
*** *The recommendations marked* † *are contrary to the views of the Local Authorities.*

LONDON SCHOOL BOARD EXHIBITION.

THE Exhibition of Scholars' Work in the Examination Hall, Victoria-embankment, is excellent testimony to the efficient work of the London School Board. The scholars are trained in the day, evening continuation, truant, blind, deaf, and special instruction schools.

In the nature drawing section for day schools, the work done by scholars up to fourteen years of age is most creditable. The still life studies are an excellent show, some of the work reaching a high standard, notably the drawing of sea shells by Miss Florence Boyden, drawn with a rare feeling for form and line. The exceedingly clever studies of Master Fred. R. Tate of brush work on tinted paper have all the decision of advanced studentship. His use of the tinted ground, and the application of body colour for the high lights, seems at first sight to be too tricky for encouragement in elementary classes, but is saved from criticism by its excellence. It is satisfactory to note that stump shading has given way to line in most of these studies, a preference which has everything to recommend it.

In decorative studies a good deal has been attempted, and some have considerable merit.



Premises for the Royal London Friendly Society.

THE ROYAL LONDON FRIENDLY SOCIETY: NEW PREMISES, FINSBURY-SQUARE.

THIS building is primarily intended for the head offices of the Royal London Friendly Society, but there is also a considerable area on the ground and first floors available for letting to public companies, &c.

It being necessary to provide a great extent of floor area on the site, the whole of the ground is covered by the building, there being no interior area.

The walls of the lower ground, ground, and first floors are all in Cornish granite; the basement being in blue bricks, and the rest of the building, including the tower, in Portland stone.

It is intended to make extensive use of the Greek marbles of Messrs. Marmor, Ltd., in the hall and corridor, and also in the public offices of the Society on the ground floor.

The contractors for the work are Messrs. E. Lawrance & Sons.

Mr. J. Belcher, A.R.A., is the architect. The drawing is exhibited at the Royal Academy, as also a model of the angle portion of the building.

NEW WING, CORNBURY PARK, OXON.

THE work illustrated in this drawing, which is exhibited at the Royal Academy, has been done with the object of providing a new main entrance to the house, the former front door being now used as a garden entrance. The original arrangements of the house having been considerably interfered with by the Late Renaissance wing added in 1750, the character of this late work has been kept up.

The stone, which is of a fine yellow colour, has all been obtained on the estate, the contractors being Messrs. Higlett & Hammond, of Guildford. The oakwork is by Messrs. J. Garvie & Sons.

Mr. J. Belcher, A.R.A., is the architect.

DESIGN FOR AN ORIENTAL ARCADE.

THIS is a drawing of a design by Messrs. Wimperis & Arber for an Oriental treatment of a subway, connecting two of Messrs. Liberty's premises in Regent-street, which it was proposed to carry out some time ago. The matter went off temporarily, and the subway has recently been constructed, but with a different treatment.

THE LONDON COUNTY COUNCIL.

THE usual weekly meeting of the London County Council was held on Tuesday in the County Hall, Spring-gardens, Lord Monkswell, Chairman, presiding.

Loans.—On the recommendation of the Finance Committee, it was agreed to lend Camberwell Borough Council 8,870*l.* for housing purposes, and 4,000*l.* for paving works; Woolwich Borough Council, 1,000*l.* for sewer works; Stepney Borough Council, 1,535*l.* for electric light installation and street lighting; and Poplar Borough Council, 1,413*l.* for electric lighting purposes.

Annual Financial Statement.—Lord Welby, Chairman of the Finance Committee, made the annual financial statement. The expenditure for the past year was 36,806*l.* less and the receipts 8,492*l.* less than were estimated. For the current year there was a net increase of 209,071*l.* in the amount to be provided for by rate. The rate required to be levied to meet the estimated expenditure is 1s. 4⅝d., 1s. 2¼d. of which, producing 2,388,937*l.*, is for general county purposes, and the remaining 2⅝d., producing 389,680*l.*, is for special county purposes. This rate is 1¼d. higher than last year's rate. London's gross debt is 57,627,000*l.*, but the Council holds assets equal to 28,927,000*l.* of this, so that the total net debt is 28,700,000*l.* Lord Welby made some remarks on the question of municipal solvency. After some discussion the estimates were approved.

The Council's Tramways.—The Council then proceeded to go through the estimates *seriatim*. When the tramway estimates were reached Mr. Cohen made some remarks upon them which drew from Mr. Benn a statement as to the general position of the tramways. Mr. Benn said that no doubt the southern tramways had had a bad year, and their difficulties had arisen owing to the fact that they had been trying to carry through a very heavy work of reconstruction whilst they were

The cretonne design by Master Francis Purdy is a creditable piece of work, with a good feeling for design and a colour treatment which would look better in execution than it does on paper. A considerable space is devoted to decorative work, and the work of the Alma School takes a prominent place. In many of the designs failure is due more to the want of a proper basis of design than to inability to draw, and much of the work seems to be greatly influenced by the catchpenny wall paper, which is so commonly recognised as "up to date." The modelling section gives much promise.

In the evening classes the work generally is more uneven. A delightfully modelled head from the hand of Mr. Archibald Cassell is one of the most successful works of these classes.

The work of the deaf schools is, relatively, up to the excellent standard of the others.

Mr. Austin Spare (16) shows some astonishing glass designs (two of which are executed) and other decorative work. His figure drawing is, of course, still crude and untutored, but the breadth and power of his conception and use of colour are very remarkable for so young a student.

There are no architectural drawings of any merit, and little or no attention seems to have been given to this branch. Some of the work is pretentious and wanting in even the barest rudiments of good design, and it is surprising to find it side by side with work in the sister arts of so good a standard.

An interesting item of the Exhibition is the contribution from the elementary schools of Germany, which compares rather unfavourably with the home work.

Illustrations.

SCULPTURE FOR QUEEN'S HOTEL, SOUTHSEA.

THESE illustrations are photographed from the plaster models in the studio of the sculptor, Mr. F. E. E. Schenck, and show the sculpture designed by him for the Queen's Hotel, Southsea, of which Mr. T. W. Cutler is the architect.

The figures are purely decorative, and are not intended to express any symbolic meaning. The two large figures are to be placed to left and right of a window opening over the principal entrance, and forming part of the central feature; they are made use of partly in a constructional aspect, and carry architectural members above.

The smaller figures in low relief in the centre of the illustration are to be repeated on each angle of a bay, and connected by swags.

running their cars as usual. But there had been experiments in other towns, and the tramway manager of Liverpool had informed him that that city had lost 94,000*l.* in two years, whilst its tramways were being relaid. The net annual average profit of the southern tramways since they had come into the possession of the Council had been 17,600*l.* When twelve months were over he hoped that they would have reached a harvest time. Besides this annual profit they had put aside a reserve fund of 40,000*l.*, and paid off interest and sinking fund charges of 89,000*l.* They had given their men a ten-hour day, one day's rest in seven, and a general levelling up of labour conditions. This had cost them 14,900*l.* a year. Then each passenger on the northern lines paid 1.12d., and on the southern lines 0.88d., and the 119,000,000 passengers on the southern lines paid 120,000*l.* less than they would have done had they lived on the other side of the Thames. The position on the north was that they could make no progress. They had tried to buy the company out, and they had tried to coax them out. As to the southern lines, an attempt had been made to frighten London with the cost of alterations. He begged the attention of the Council to the following figures :—

Number of miles run by the 385 horse cars	10,400,000
Number of miles which would be run by the electric cars	13,750,000
Receipts at 1s. per car per mile	£687,500
Working expenses at 6d. per car per mile	343,750
Estimated profit	£343,750

The total capital expenditure on this part of the line had been 1,900,000*l.*, on which interest and sinking fund had to be paid. This would leave a balance of 210,000*l.* a year in relief of of rates.

New By-laws.—The Council meeting then became special and three new by-laws were adopted unanimously :—

"(1) No person shall (1) sweep or otherwise remove from any shop, house, or vehicle, into any street any waste-paper, shavings, or other refuse, or, being a costermonger, newsvendor, or other street trader, throw down and leave in any street any waste-paper, shavings, or other refuse; (2) throw down and leave in any street any bill, placard, or other substance intended for the purpose of advertising; throw down and leave in any street any bill, placard, or other paper which shall have been torn off or removed from any bill-posting station.

No person shall throw, place, or leave any bottle or any broken glass, nails, or other sharp substance (not being road material) on or in any street or public place in such a position as to be likely to cause injury to passengers or animals or damage to property.

Any person who shall offend against any of these by-laws shall be liable for each offence to a fine not exceeding 40s.

2. Every person who in any street, to the obstruction, annoyance, or danger of residents or passengers, orders or permits any person in his service to stand or kneel on the sill of any window for the purpose of cleaning or painting such window, or for any other purpose whatsoever, such sill being more than 6 ft. in height from the level of the ground immediately below it, without support sufficient to prevent such person from falling, shall for every such offence forfeit and pay a sum not exceeding 5*l.*

Every person who in any street, to the obstruction, annoyance, or danger of residents or passengers, stands or kneels on the sill of any window for the purpose of cleaning or painting such window, or for any other purpose whatsoever, such sill being more than 6 ft. in height from the level of the ground immediately below it, without support sufficient to prevent such person from falling, shall for every such offence forfeit and pay a sum not exceeding twenty shillings.

3. No person shall spit on the floor, side, or wall of any public carriage, or of any public hall, public waiting-room, or place of public entertainment, whether admission thereto be obtained upon payment or not.

Any person who shall offend against this by-law shall be liable for each offence to a fine not exceeding 40s."

Fire Station, Old Kent-road.—It was agreed that an expenditure of 10,650*l.* be sanctioned for the work of erecting the proposed new fire station in Old Kent-road; that the work be executed by the Council without the intervention of a contractor; and that the drawings, quantities, specification, and estimate be referred to the Works Committee for that purpose.

Main Drainage Extension: Deptford Pumping Station.—The following recommendation of the Finance Committee was agreed to :—

"That the estimate of 95,000*l.* submitted by the Finance Committee, in respect of the enlargement of the main drainage system on the south side of the Thames at or near the Deptford pumping-station, be approved, and that the Main Drainage Committee be authorised to have the necessary drawings, specifications, and bills of quantities prepared."

Rotherhithe Tunnel: New Street.—It was agreed to spend 4,865*l.* in connexion with the formation of the new street from Swan-lane to Brunel-road, Rotherhithe Tunnel. The work is to be carried out by the Works Department.

Vauxhall Bridge.—The Bridges Committee reported as follows :—

"The Council on November 25, 1902, approved a design showing the superstructure of the new Vauxhall Bridge to be constructed wholly of steel, with elliptical arches, and in connexion therewith sanctioned an expenditure of 170,000*l.* When the elevation was submitted the Council was informed that the ornamental portion of the design was not to be regarded as in any way final, that the design was only intended to show the lines on which it was proposed that the bridge should be constructed, and further that the artistic treatment would form the subject of subsequent consideration. This has proved to be a problem of considerable difficulty by reason of the fact that the piers and abutments were built to carry a masonry and not a steel bridge, which, as a necessary consequence, has involved the task of reconciling these two diverse methods. The design of Vauxhall Bridge which we have had hung up in the Council Chamber, and upon which we comment in detail below, has been prepared by the Engineer, the Architect having, in accordance with our instructions, advised as regards its artistic treatment.

It will be remembered that when this subject was before the Council on the above-mentioned date, two designs submitted to us by the engineer, one with elliptical curves and the other with segmental arches, were exhibited in the Council chamber. Although there was very little to choose between the two designs, we were of opinion that the elliptical curves would give a somewhat better appearance to the bridge, and accordingly recommended their adoption. In considering the ornamental features of the bridge, to which we have given most careful consideration, we have come to the conclusion that a segmental arch structure, for which the engineer in the first instance expressed a preference, lends itself more readily to the architectural treatment which we now submit to the Council for adoption. In addition, a segmental arch bridge will give more headway for navigation close to the piers.

The chief point in the design now submitted is that the constructive metal work is carried through continuously from end to end of the bridge, the masonry piers being used as supports, and not carried up to form decorative features above the point of support. The gradient of the bridge is shown, as on the design originally placed before the Council, as one continuous curve, the elevations being finished by a high balustrade in metal broken by the introduction of a panelled treatment over each pier, which the space between the front edge of the masonry and the external face of the girders affords. Turning to the approaches, the masonry on the Vauxhall side will be constructed as a simple abutment. On the northern or Westminster side, however, the suggested design is proposed to accommodate the eventual possible continuation of the embankment along the river wall. For this purpose arches are provided under the approach to the bridge. The difference in level, however, between the embankment and the bridge-approach road being insufficient to permit of carriage traffic on the embankment, gradients on the latter down to and underneath the bridge would be necessary. Broad flights of steps on either side of the approach would be arranged to connect the upper roadway with the lower. Whilst the proposed approach upon the northern side will eventually necessitate the acquisition of additional land, we consider the scheme is one which should be worked up to, and the masonry on the approach constructed as far as possible in the manner suggested on the land now belonging to the Council, and this will in no way militate against the value of the design now presented. In order to give dignity to the approach from what may be termed the City side, it has been urged by the architect that oblong pylons should be built, as shown upon the cartoon. The cartoon shows the pylons considerably reduced in size from those originally proposed, this reduction being rendered necessary to enable them to be erected on the foundations already built. On the other hand, we have been advised not to entertain the erection of pylons at the opposite end of the bridge, but simply to finish the balustrade on the approach road at the level of that on the bridge itself.

The idea in developing the scheme has been to depend, for the most part, on the simplicity of the engineering lines of the bridge, and to secure dignity by emphasising them and treating the approaches in a substantial manner. We advise the Council to adopt the design, with the exception of the pylons, and have no hesitation in expressing the opinion that it is one of architectural value to London, and suitable for a structure of such importance as Vauxhall Bridge. Our reasons for deciding to omit the pylons are on account of the additional cost which these erections will entail, and also of the amount of space which they would occupy, and the consequent interference with traffic. We also understand that very probably his Majesty's Government will erect on the Crown property adjoining the approach large blocks of high-class dwellings, which would have the effect of overshadowing the pylons. The architect, however, is still strongly of opinion that the omission of the pylons would be a fatal error.

We have considered the probable cost of carrying out the works which remain to be done at Vauxhall Bridge on the completion—most probably in June next—of the present contract with Messrs. Pethick Brothers, and in view of the ornamental features of the design, desire to increase our estimate of 170,000*l.* by 22,690*l.* The proposed extra expenditure is made up as follows :—

For decorative masonry work in connexion with the inside of the arches, and the broad flight of steps which represent the deferred portion of the north approach, irrespective of the cost of the land	£4,690
For panels over the piers	8,000
Addition to engineer's estimate of 170,000*l.* rendered necessary in consequence of the alterations of design	10,000
	£22,690

The construction of pylons over and above a simple finish to the balustrade which, however, as above stated, we do not recommend, would involve an additional expenditure of 10,000*l.* We recommend :—(*a*) That the resolution of the Council in so far only as it directs that the new Vauxhall Bridge shall be an elliptical arch structure be rescinded. (*b*) That the design submitted, showing a steel segmental arch structure and the proposed architectural and artistic treatment of the same, be adopted, with the exception of the pylons. (*c*) That the supplemental estimate of 22,690*l.*, submitted by the Finance Committee be approved, and that the Bridges Committee be authorised to incur such additional expenditure in connexion with the construction of the new Vauxhall Bridge."

Mr. J. E. Sears, Chairman of the Committee, moved the Committee's recommendations, with the exception of recommendation (*b*). He said that the design for the bridge was the joint design of the engineer and the architect, and the work of those two gentlemen was quite distinct. The engineer was solely responsible for the constructive part of the bridge, whilst the architect was responsible for its decorative treatment. The architect had given a good deal of thought and time to the preparation of the design, and that there might be no question of the suitability of the bridge for the position it was to occupy, the architect had taken advantage of the friendly advice of an eminent architect, Mr. Norman Shaw, R.A. This was not the first time that Mr. Shaw had placed his great ability at the service of the Council and London without fee or reward, except the satisfaction which he must feel in adding to the artistic beauty of the Metropolis. The parapet and details of the bridge had been treated in harmony with the general construction. There was one feature which had been introduced, *i.e.*, at the northern end, where it was suggested the Council should prepare for a possible future extension of the Embankment, and with this intention the design showed a roadway and steps leading down from the bridge to the Embankment, and with two pylons at the end of the bridge. They would all be agreed as to the desirability of this extension of the Embankment; the only question would be the expense. The question for the Council now was whether the design as prepared should be accepted, or whether the two pylons should be omitted. They were asked what was the use of the pylons? First, they were of structural use, for the weight of the pylons in the position shown depressed the thrust of the arch, and when the roadway was constructed at some future time—[The speaker was proceeding, when his remarks were ruled out of order. On the suggestion of Mr. Burns, M.P., consideration of the matter was adjourned owing to the lateness of the hour.]

The Brick-making Experiment.—The Housing of the Working Classes Committee reported as follows, the recommendation being agreed to :—

"We have received an offer from Mr. Spencer, a builder of Croydon, to purchase some of the bricks made by the Council at the brickfield on the Nor-

bury estate. Mr. Spencer wishes, in the first instance, to take 50,000 of the 2nd quality of bricks, known as grizzles, and 50,000 of the 3rd quality, known as place bricks, and offers 30s. per 1,000 for the grizzles and 28s. per 1,000 for the place bricks. As pointed out in our report on April 7, 1903, the actual cost of the bricks to the Council has been at the average rate of 29s. 7d. per 1,000, and in view of this, we think that the offer of Mr. Spencer for the 2nd and 3rd quality bricks may be regarded as satisfactory. We recommend that, subject to the result of inquiries proving satisfactory, the offer of Mr. Spencer to purchase 50,000 grizzles, at 30s. per 1,000, and 50,000 place bricks, at 28s. per 1,000, from the bricks made by the Council on the Norbury estate, Croydon, be accepted."

Housing Progress.—The Chairman of the Committee, Lord Carrington, said that last year they had housed 4,576 persons, at a cost of 217,676*l.*, which would impose no charge on the rates. During the three years 1898, 1899, and 1900 provision had been made for 2,795 people. During the three years 1901, 1902, and 1903 the number was 10,794. The Committee, in accordance with the suggestion of the Queen, made when her Majesty was visiting the Millbank estate, that the Council's tenants required more cupboards in their dwellings, obtained a vote of 320*l.* for this purpose in the Ann-street houses at Poplar.

Theatres, &c.—The following applications were agreed to:—

Alterations to the stage at the Cripplegate Institute, Golden-lane, E.C. (Mr. F. Hammond).

A hinged screen at the foot of the staircase from the Hall of the Cripplegate Institute to Cripplegate-street (Mr. F. Hammond).

Alterations to the Grosvenor Galleries, New Bond-street (Mr. W. Cave).

Arrangements for a representation of an Assouan village at the London Exhibitions, Earl's Court (Mr. A. O. Collard).

Structural improvement of St. George's Hall, Langham-place (Mr. Buckle for Mr. J. N. Maskelyne).

The Council adjourned at 7.30 p.m.

Books.

The Construction of Roads, Paths, and Sea Defences. By FRANK LATHAM, M.Inst.C.E. London: The Sanitary Publishing Co. 1903.

WHEN the title of a small book is large, it is a very fair inference that the value of the matter must suffer. Of the present volume less than 177 pages are devoted to a discussion of the subjects suggested, and the remaining thirty pages are occupied with unnecessarily lengthy extracts from Acts of Parliament and suggested specification clauses. Roads in themselves afford quite enough matter for a good book, and sea defences for another. Not content with two such subjects, the author has wandered away to discuss embankments, retaining walls, steel bridges, street railway tracks, and the manufacture of artificial stone. He has really attempted too much, and the result is a mere book, rather than a scientific treatise. We do not deny that there is much useful and interesting matter in the book before us, but much of it has been said before by the many authors, ancient and modern, so liberally quoted by Mr. Latham. This volume constitutes one more proof that the kind of matter which may be admirably suited for the readers of a weekly journal, is not necessarily worth reproduction in a permanent form. The author has, however, taken pains to present accurate information, and his work may be of service to those desiring little more than superficial information.

Colonial and Camp Sanitation. By GEORGE VIVIAN POORE, M.D., F.R.C.P., &c. London: Longmans, Green, & Co. 1903.

WE are so much in sympathy with Dr. Poore's efforts in the cause of sanitation that we turned to this volume with some eagerness, believing that it would be both interesting and instructive. So it is, but there is nothing new in it except a preface of eight lines and a final note of five lines. The first chapter on "The Sanitation of Camps" appeared in the *Lancet* in 1901, and was reprinted last year in Dr. Poore's book, "The Earth in Relation to the Preservation and Destruction of Contagia." The first part of the second (and last) chapter consists of an article from *Country Life* of July 6, 1901, subsequently reprinted in the book already referred to; and the second part of the chapter has appeared in another book of Dr. Poore's entitled "The Dwelling-house." To those who do not possess the author's previous works the new volume will be useful. It contains valuable practical hints on domestic sewage disposal, the application of fæces to land, the storage of rainwater, earth-closets, and other details of sanitation.

Continuous Current Dynamos and Motors and their Control. By W. R. KELSEY, B.Sc., A.I.E.E. Manchester: The Technical Publishing Co. 1903.

THE beginning of this book consists of a collection of articles which originally appeared in the *Practical Engineer*. These have been revised and enlarged by Mr. Kelsey, who has also completed the work. The object of the book is to teach the engineer how to design dynamos and motors, for the author considers that this is now the work of the mechanical engineer. With this object in view definitions and explanations are given of the electrical units, and the reader is gradually introduced to the consideration of the main problems which arise in designing dyamos and motors.

A careful study is made of tramway motors and their gearing and the curves illustrating the relations between flux, speed, and torque are clearly drawn and fully discussed. A fairly successful attempt has been made to explain the Arnold and Mie theory of commutation, but this theory is, in our opinion, a much overrated one. The initial suppositions made about self-inductance, &c., are wholly unjustifiable, and the mere fact that the final results explain roughly what happens in practice is no proof that the theory is correct.

The equations describing the method of separating the hysteresis and eddy current losses in dynamo machines (p. 433) are very awkwardly expressed, and would probably mislead any one seeing them for the first time. The method is, we believe, due to Mr. Swinburne. It goes on the supposition that the mechanical friction is the same with the field magnets excited or unexcited. In many cases, however, this is far from being true, and the limitations of the method ought to be pointed out. There is a misprint in the formula given for the Hopkinson efficiency test, and Kirchhoff's name is spelt with one "h."

We consider, however, that this book forms an excellent introduction to the subject, and we recommend it to mechanical and electrical engineers.

Electric Light in Cottages and Small Houses. Manchester: R. J. Nicholson & Co.

THIS booklet discusses the advisability of wiring workmen's cottages rented at from 5s. to 10s. 6d. per week for the electric light. The introduction of "penny-in-the-slot" meters gets over the difficulty caused by quarterly accounts to the working classes, and examples are given where wiring cottages has apparently increased their value, and where the cost has been no greater than gas. "A builder has a block of thirty cottage houses consisting of six rooms each—sitting-room, scullery, and three bedrooms. The floorboards are not laid, and no plastering has been done. The price for fitting this block for electric light would be 65*l.*, or 2*l.* 2s. per cottage. This estimate is for work executed in compliance with the Rules and Regulations of the Various Corporations and Fire Offices." We think that the suggestions put forward by Messrs. Nicholson are worth considering. In some cases they could be adopted with advantage.

Model General Conditions for Electricity Works Contracts. Recommended by the Institution of Electrical Engineers. London: E. & F. N. Spon.

THE model general conditions given in this pamphlet were drafted by a Committee of the Institution of Electrical Engineers, and were discussed at an ordinary general meeting last year. As the Committee consisted of both consulting engineers and contractors, we may presume that these conditions are acceptable to both, and hence they will be very useful in connexion with contracts for plant, mains, and apparatus for electricity works. The drafting of the clauses has been very carefully done, and several of them, such as those discussing "patent rights," "method of making tests," &c., are very suggestive, and will be invaluable to those drafting electrical specifications.

Rating of Electricity Undertakings. By W. G. BOND. London: The *Electrician* Printing and Publishing Co.

MR. BOND discusses briefly in this little book the difficult problem of the rating of electric lighting and tramway undertakings. He gives a clear explanation of the principles underlying the modern systems of rating, and points out the ordinary methods adopted by rating surveyors. The samples of assessments of electric tramways and lighting companies given at the end of the book show some curious anomalies. It looks as if the ingenious hypotheses invoked "to make twentieth-century practice square with Elizabethan principles" lead in some cases to inequitable assessments.

Specification for a Lancashire Boiler and Boiler Seating. By "INSPECTOR," M.I.Mech.E. Manchester: The Technical Publishing Co., Ltd. 1903.

WITH a few preliminary observations the author of this pamphlet introduces the specification of a 30 ft. by 8 ft. Lancashire boiler, which is accompanied with drawings of various details making clear some of the essential constructional points. The writer does well in remarking that it is a mistake to employ "any local builder" to carry out the boiler setting. Some builders are quite familiar with such work, and may safely be entrusted with its performance; but in a general way the author is right in saying that "boiler-setting is in itself a special branch of the brick-setting trade." The specification and drawings of the seating should be of service to architects and others who may be responsible for the installation of steam-generating plant. A useful hint is contained in the last paragraph, to the effect that the covering of the boiler and steam pipes should be deferred until the plant has been at work for a few weeks.

The American Vignola. Part I.—The Five Orders. By W. H. WARE. Boston: American and Building News Co. 1902.

THIS is a short illustrated treatise on the Five Orders, by the Professor of Architecture in Columbia University. It is admirably done; a brief introduction suggests a kind of philosophical reason for the Orders, as representing the essentials of architecture, and they are then successively analysed and illustrated. The drawings are not as fine or nearly as numerous as those of Mauch and Normand, but they represent typical examples, and the book is a good and useful résumé of the subject within narrow limits and in a cheap form.

The Law affecting Building Operations and Architects' and Builders' Contracts. By ISAAC CONNELL, S.S.C., Edinburgh. Edinburgh: William Green & Sons. 1903.

THIS is an excellent book, and it has a kind of piquancy, if we may use the word of a law book, since it contains both English and Scotch law. The foundation of Scotch law is Roman law, and it is not uninteresting to note decisions by Scotch lawyers on questions relating to building operations. Both the English lawyer and the English practitioner will find the book useful and suggestive, since the English decisions are very well treated, and are regarded with a more critical eye than is usually cast on them in this country. To the Scotch practitioner the book will be especially valuable, and we wish it every success.

The Employers' Liability Act, 1880, and the Workmen's Compensation Acts, 1897 and 1900. By ALFRED HENRY RUEGG, K.C. Sixth Edition. London: Butterworth & Co. 1903.

IN the Law Courts Mr. Ruegg, K.C., is well known to be a leading authority on the subject of the above book. It is therefore not surprising that the work has reached a sixth edition. It contains 558 pages, and the price is 15s., and it is a more important work than many others on this subject. Any one who desires to have what may be called a full work on the Employers' Liability Act cannot go wrong if he obtains this book.

The Workmen's Compensation Acts, 1897 and 1900. With Notes by W. ADDINGTON WILLIS, Barrister. Eighth Edition. London: Butterworth & Co. 1903.

THE fact that this is the eighth edition is

sufficient evidence that this book is useful, and it is sufficient to chronicle the fact of the new edition of 185 pages.

The Consumers' Handbook of the Law Relating to Gas, Water, and Electric Lighting. Second Edition. By LAURENCE DUCKWORTH, Barrister. London: Effingham Wilson. 1903.

THIS excellent little book has, we are glad to see, passed into a second edition. It is unnecessary to refer to this new edition in detail, but any one who wishes to obtain a general idea of the law in regard to the subjects dealt with in this book will find it clear and reliable.

Wilson's Equivalent of English Pounds and Kilogrammes. London: Effingham Wilson. 1903. 2s. 6d.

THIS is simply a small book of tables of weights in pounds and the corresponding weights in kilogrammes and decimals of a kilogramme, ranging from 1 lb. to 1,540 lbs. by units; thence proceeding by tens up to 2,240 lbs., and thence by tons from 11 to 100. The other half of the book gives the reverse order—kilogrammes with their complements in pounds and decimals. It will be very useful for those who have frequently to convert French measures into English and *vice versâ*. It may also serve to remind people of what a kilogramme is, and prevent their making the mistake of the lady who astonished a French shopkeeper by ordering "half a kilomètre of sausages."

Gardens Old and New. Vol. II. Edited by JOHN LEYLAND. London: Offices of *Country Life*.

THIS is a handsome volume of illustrations from photographs of gardens. The illustrations are beautifully produced; but the book is one for the drawing-room table rather than for the architect's library.

The City of London Directory for 1903. London: W. H. & L. Collingridge. Price 12s. 6d.

THE thirty-third annual issue of this excellent Directory contains all the useful features of previous editions, and several new features in addition. The work includes a streets guide, alphabetical directory, trades guide, Livery Companies guide, a biographical directory, Corporation directory, public companies directory, and a large coloured map of the City of London, which, however, might with advantage be strengthened by a linen back. The Official Section contains a list of the Aldermen and Members of the Court of Common Council, with the Chairmen and Members of the Committees of the Corporation, and details of the officials connected with the various executive bodies of the City. In addition to the information given in previous years is a list of the Members of the new Metropolitan Water Board, and also of the Council of the City and Guilds Institute for the advancement of National Education. The Livery Companies Guide supplies the names and addresses of the Masters and Courts of Assistants, engravings of the arms, historical accounts of the Companies, their ancient powers and present privileges, particulars of fees and their charities, &c. There is a section relating to the public buildings of the City, and this contains details as to the history and structure of the bridges, and the better known of the City churches, and a brief account of some of the halls of the Livery Companies. The street improvements of the year are indicated in the map. Among the principal additions may be mentioned the opening of Broad-street-place, the erection of the New Baltic in St. Mary Axe, the new Birkbeck premises in Holborn, buildings in Old Jewry, King William-street, and Threadneedle-street, and the further extension of Lloyd's-avenue. The Directory is well-arranged and printed, and the information it contains appears to be as reliable as that to be found in the Post Office London Directory. Indeed, the City of London Directory must be as indispensable to City people as the Post Office Directory.

WESLEYAN CHURCH, PLEASLEY HILL, DERBYSHIRE.—A new Wesleyan Church has just been erected at Pleasley Hill. The chapel is built of red brick, with stone dressings. The contract was carried out by Mr. J. Warner, Pleasley, from designs prepared by Mr. Goodacre, architect, Mansfield.

BOOKS RECEIVED.

A BEAUTIFUL WORLD. Journal of the Society for Checking the Abuses of Public Advertising. (John Bale, Sons, and Danielsson.)

THE LAW RELATING TO INJURIES TO WORKMEN. By F. G. Neave, LL.D. (Effingham Wilson. 1s. 6d.)

Correspondence.

BENGEO OLD CHURCH.

SIR,—Your correspondent, Mr. Albert Mitchell, has called attention to the interesting but dilapidated apsidal church of Bengeo, near Hertford. It appears to me typical of a class represented pretty largely up and down the country. Like many other churches of the same kind, at the first glance it wears an aspect of great antiquity, but when interrogated it reveals Norman rather than Saxon features. I could not see in the quoins any signs of Saxon work, and the most Saxon-looking detail of the building seemed to me the impost of the chancel arch. Apart from this, all the features agree with a Norman date. The plan, the proportions, the thickness of the walls, the form and technique of the original chancel windows (so far as preserved), and above all the method of construction of the chancel arch, are all characteristically Norman. If Bengeo were accepted as Saxon, we should have to include in any pre-Conquest list a large number of other examples that have really no claim, save a general look of age, to a Saxon ascription.

G. BALDWIN BROWN.

"THE COST OF A MEDIÆVAL MIRACLE."

SIR,—I have only just noticed "The Cost of a Mediæval Miracle" in the "Notes" of your issue of 4th ultimo.

I know very little of Church history, but is it not probable that "The Holy Ghost (or Dove) appearing in the Kirk Roof" was merely part of a "mummery" or tableau representing a scene from the Bible?

HENRY W. ALLARDYCE.

OBITUARY.

MR. E. F. WYMAN.—The death was announced on April 27 of Mr. Edward Franck Wyman, the youngest son of the late Mr. Charles Wyman, of the late firm of Messrs. Wyman & Sons, of Great Queen-street, which firm were the printers of the *Builder* for many years. Mr. Wyman was apprenticed to the late Mr. David Nutt, the foreign bookseller and publisher, and did not take an active interest in the practical part of the business until the retirement of his father. On the occasion of his silver wedding on March 10, 1888, Mr. Wyman was presented with a silver drinking cup and salver, together with a congratulatory address by the heads of departments and other employees of the firm, by Mr. Bate, the head reader, whose services extended at that time over a period of forty years, while many of those then present had been in the employment of Messrs. Wyman & Sons for from thirty to fifty years. Mr. Wyman was a member of the "Sette of Odd Volumes" from its foundation, and had filled the office of president of that society.

GENERAL BUILDING NEWS.

CHRIST CHURCH, MOSS SIDE, MANCHESTER.—The work of completing the rebuilding of Christ Church, Lloyd-street, Moss Side, has been commenced. The building is of the late Decorated period, after designs by Mr. W. Cecil Hardisty, architect, of Manchester.

MISSION HALL, GATESHEAD.—On the 6th inst. the new Mission Hall, erected in Beech-street, Sunderland-road, Gateshead, for St. James's Parish, was opened. The hall will seat 500 people, and there are also two classrooms. The work has been carried out by Messrs. John Ross & Sons, of Gateshead, Mr. G. H. Martin, of South Shields, being the architect.

UNITED METHODIST CHURCH, WHITLEY.—The foundation and memorial stones of the Benson Hall and vestries in connexion with the United Methodist Free Church, at Whitley Bay, were laid on the 6th inst. The new buildings will have a frontage to Whitley-road. The ground-floor plan provides a covered way right through from Whitley-road to the Free Church Hall. On either side of the wide passage will be several rooms, suitable for church work, &c. On the right will be a minor hall, to seat from seventy to eighty persons, and behind there will be a kitchen. On the left of the passage will be a new vestry for the minister, with staircase behind, and an ante-room for the use of the Free Church Hall. Upstairs there will be three rooms. The architects are Messrs. Mould & Tasker, of North Shields, and the contract is being carried out by Mr. Alfred Styan, of Whitley Bay.

WESLEYAN CHAPEL, SHREWSBURY.—The foundation-stone has just been laid of a new Wesleyan chapel in the Clee Hill District, Shrewsbury. The new chapel, which will be built of brick, will seat 200. It will have a frontage to the Ludlow road of 48 ft., with a depth of 28 ft., a porch and a vestry. The roof will be an open span, with pitch-pine principals, and will be covered with tiles. The seating will be pitch pine, and there will be a pitch-pine rostrum and oak communion rails. The architects are Messrs. Joynson, of Darlaston and Wednesbury, and the contractors are Messrs. Turford & Southward, Ludlow.

CHURCH, ANNBANK, AYRSHIRE.—A new church has been erected at Annbank. The new church is built of Ballochmyle stone, and has been erected from plans prepared by Mr. J. B. Wilson, architect, Glasgow. The style is Gothic throughout. The body of the church consists of a nave 84 ft. in length, with a small gallery at the end, and of one low side aisle divided from the nave by a series of arches which carry the nave wall on this side; also a north and south transept, divided likewise from the nave by large arches. The pulpit platform, which is two steps up from the floor-level, is a continuation of the nave. A large three-light lancet window is placed at each end, one of these, the window over the pulpit, has been filled in with stained glass. The principal entrance to the church is by a doorway under the tower. The church is seated for between 400 and 500, and the cost is between 3,000*l.* and 4,000*l.* including manse. Mr. David Campbell, Ayr, was contractor for mason work; the contractors for joiner work being Messrs. Rome & Son, Kilmarnock. The other contractors in order were:—Alex. Dalrymple, Ayr, slater work; Renfrew & Newal, Glasgow, plumber; Elder & Son, Kilmarnock, plaster; William Anderson, Kilmarnock, painter; Cormack & Son, Glasgow, heating; Meikle & Son, Glasgow, glazier; Wylie & Lochhead, Glasgow, upholstery; Jas. Thomson, Ayr, railings; Howat, Ayr, grates and tile hearths. Mr. William Scott acted as clerk of works.

NEW MISSION HALL, GATESHEAD.—On the 6th inst. the new mission hall erected in Beech-street, Sunderland-road, Gateshead, for St. James's Parish, was opened. The hall is of one story, built of red brick. There is a big hall to seat 500 people and two classrooms. The work has been carried out by Messrs. John Ross & Sons, of Gateshead, Mr. G. H. Martin, of South Shields, being the architect.

CHURCH, OLD BASFORD.—The foundation-stone was laid on the 7th inst. of a new church in Arnold-road, Old Basford. For the present only the nave and aisles are to be erected, leaving the chancel, choir vestry, and organ chamber to be completed at a later period. The estimated expenditure on the contract now let is 5,000*l.* The architects are Messrs. R. Evans & Son. The church, which is to be 80 ft. long and 24 ft. wide, will be built of Bulwell stone, faced with Coxbench stone.

ST. GEORGE'S CHURCH, WOLVERTON.—After having been altered and repaired, St. George's Church, Wolverton, was re-opened recently. Mr. J. Oldrid Scott, F.S.A., was the architect.

CHAPEL, PENGEULAN.—The memorial stones of a new chapel at Penguelan, between Miskin and Penrhiwceiber, in connexion with the Welsh Calvinistic Methodists, were laid recently. The architect is Mr. D. Roderick, Aberdare, and the contractor Mr. T. Williams, Senghenydd. The contract price is 2,505*l.*

CONGREGATIONAL CHURCH, SHIREBROOK, NEAR MANSFIELD.—It is proposed to build a new Congregational Church at Shirebrook, near Mansfield, Notts. The buildings will comprise a church to seat 400 persons, with a school at the rear. The architect for the scheme is Mr. C. Nelson Holloway.

CHAPEL, COLEBY, LINCOLNSHIRE.—A new Wesleyan chapel is being erected at Coleby. The new building will seat 150 persons, and there will be room for a further fifty in the adjoining schoolroom, which, by means of a revolving shutter, may at will be thrown into one with the chapel. The architect is Mr. J. R. Halkes, Lincoln, the contractors being Messrs. W. and M. Halkes, Lincoln.

SCHOOL, NORWICH.—The new "George White" Board school in Silver-road, Norwich, is approaching completion, the infants' department having been opened for use on the 4th inst. The elevations of the "George White" are of red brick, with terra-cotta dressings. The school provides accommodation in three self-contained departments for 1,114 boys, girls, and infants, as follow:—Boys, 386; girls, 386; infants, 344. Each of the three departments contains a lateral hall, together with six classrooms. At the "George White" the lateral halls in the boys' and girls' departments will accommodate a class; that in the infants' will not. The classrooms themselves are arranged to hold fifty-six children. Several of these rooms are shut off from the lateral hall by Wilk's patent screens. Extra rooms are provided in the central block on the first floor for manual and for cookery and laundry instruction, and also for the caretakers. The building is lighted throughout with the electric light. The heating is by hot-water pipes, and in the infants' department the pipes are supplemented by Bowes' well fires. There is a covered playground for each department. The whole of the work has been carried out from the plans of Mr. C. J. Brown, architect to the Dean

and Chapter and to the School Board, by Mr. T. Gill, builder. The electric light has been installed by Messrs. Mann & Co., and the hot water by Messrs. Charles Payne & Co.

AMBULANCE DRILL HALL, ACCRINGTON.—The foundation stones for the new drill hall for the Accrington Corps of the St. John Ambulance Brigade were laid recently. The main entrance to the drill hall will be in King-street, by a passage 12 ft. wide, to allow the ambulance van to be brought in for drill and practice. The hall will be 68 ft. long and 5 ft. 6 in. wide, 14 ft. at the sides, and 29 ft. at the ridge. The offices and side entrance will be in Hyndburn-road, and will comprise a secretary's office, officers'-room, and two apartments for recreation which may be converted into one and used as a lecture-room. The ambulance van house will also be in Hyndburn-road, with access either from the interior of the hall or the street. The walls will be of brick and terra-cotta, and will contain two panels containing the device of the brigade. The architects are Messrs. Haywood & Harrison.

RECONSTRUCTION OF ABERDEEN MUNICIPAL BUILDINGS.—There has been issued to members of Aberdeen Town Council the report by Mr. John Rust, the City Architect, on the proposed reconstruction of the Municipal Buildings, plans for which he had prepared. Mr. Rust estimates the total cost at 10,000*l.* The alterations on the Town Hall, &c., would be carried out last, and while this was being done the Town Council could meet in the Town Hall, entering by the Town and County Hall staircase.

NEW BUILDINGS IN ABERDEEN.—The Plans Committee of the Aberdeen Town Council have passed the following plans of new buildings, alterations on property, &c.— Four dwelling-houses on the east side of Urquhart-road, for Mr. Joseph Corbett, builder, per Messrs. Walker & Duncan, architects; dwelling-house on the south side of Great Western-road, for Mr. James Mathieson, per Messrs. Cameron & Watt, architects; alterations in connexion with the Palace Hotel, Union-street, for the Great North of Scotland Railway Company, per Mr. A. M. Mackenzie, architect; three dwelling-houses on the east side of Mile End-avenue, for Mr. George Chalmers, per Messrs. W. Henderson & Son, architects; dwelling-house on the east side of Richmond-terrace, for Mr. John I. Murray, per Messrs. Cameron & Watt, architects; alterations and additions in connexion with factory on the south side of Union Glen, for the Aberdeen Match Manufacturing Co., per Mr. John Rust, architect; addition to engineering works on the west side of York-street, for Messrs. A. Hall & Co., shipbuilders, per Mr. John Rust, architect; and stockrooms and warehouse on the east side of Carmelite-lane, for the Imperial Hotel Co. and Messrs. Cruickshank & Sellar, iron merchants, per Mr. John Rust, architect.

NEW POLICE STATION IN THE CITY.—The foundation stone of the new police station in Moor-lane was laid recently. The City Surveyor, Mr A. Murray, under the direction of the Police Committee, prepared plans for utilising the site, with the exception of a portion of the ground floor, and the basement next to Fore-street. That area will be reserved at present for three shops. The tender of Mr. Porter, of Tottenham, was accepted at 20,000*l.* The building will include provision for sixty-seven men, with a messroom, reading and billiard-rooms, a clothing store department, and other offices. The new station will be fitted with an installation of the electric light.

SCHOOL, CURRIE, EDINBURGH.—At a meeting of Currie School Board the design sent in by Mr. William Baillie, architect, Glasgow, was adopted. The school is to occupy a site at the west end of the village, on the high ground at the junction of the Lanark and Curriehill roads. The plans show a design of square-dressed rubble masonry, with dressings of red Dumfriesshire sandstone, and roofed with green slates and tile ridge. The school provides accommodation for 206 pupils. The entrances are situated near the centre of the main front, facing the Lanark-road, and give access to corridors leading directly into a central hall. Four classrooms and the boys' and girls' cloakrooms are grouped around the three sides of the hall, and each opens directly off it. Two teachers' rooms, &c., form the remaining side of the hall, and look towards the back. The school will be heated throughout by means of hot-water pipes and radiators on the low-pressure system. Shelters and suitable lavatory accommodation are provided. The estimated cost of the buildings amounts to 2,676*l.*

CLUB, SCOTSWOOD, NORTHUMBERLAND.—A new social club has been erected at Scotswood. The building is of red brick with stone facings, and contains two shops, a lounge bar, a billiard-room with two tables, a recreation-room, which can be partitioned off so that one half may be used as a reading-room; and on the top floor there are the stewards' premises. The building has been erected at a cost of 3,000*l.*, from plans by Mr. A. Gibson Kyle, Newcastle, and the contractor has been Mr. H. P. Thirlwell, of Benwell.

SCHOOLS, NEWCASTLE-ON-TYNE.—The premises formerly known as Blenheim-street Wesleyan Chapel, having undergone structural alterations and additions, have been re-opened by the Newcastle School Board as a school for infants and juniors. Accommodation has been provided for 537 children in the classrooms. Each department has separate cloakrooms, lavatories, and teachers' rooms. The general contractor for the work is Mr. E. Weatherley, and the architect Mr. Charles S. Errington, both of Newcastle-upon-Tyne.

SUNDAY SCHOOL, GARSTANG, LANCASHIRE.—The foundation stone of the new Congregational Sunday School at Garstang was laid on the 6th inst. The building is to be constructed of Yorkshire stone. The school will contain a large room and two classrooms, and will embrace a caretaker's cottage and a heating chamber, which will also serve the chapel. The cost, exclusive of furnishing, will be a little over 1,000*l.* The building is to be constructed by Messrs. Collinson & Sons from the design of Mr. S. Wilson, architect, of Garstang.

ABERDEEN UNIVERSITY EXTENSION.—A meeting of the Sites and Plans Committee of Aberdeen University Court was held in the Senatus Room of Marischal College on the 5th inst., for the purpose of considering the offers and accepting the contracts for the extension of Marischal College, in accordance with the University extension scheme, for which the plans by Mr. A. Marshall Mackenzie, A.R.S.A., Aberdeen, have been approved. The following are the names of the contractors whose offers were accepted:—Mason-work, Mr. John Morgan, 19,945*l.*; carpenter-work, Messrs. D. Macandrew & Co., Loch-street, 5,564*l.*; slater-work, Messrs. Adam & Co., Hutcheon-street, 284*l.* 19s.; plaster-work, Messrs. James Scott & Son, John-street, 3,650*l.*; plumber-work, Messrs. Blaikie & Sons, Union-street, 795*l.*; painter-work, Mr. John Whyte, Union-street, 937*l.*; steel and iron work, Messrs. James Abernethy & Co., Ferryhill Foundry, 2,175*l.*; electric lighting, Mr. A. B. Robertson, Union-row, 1,139*l.* The total amount of the contracts accepted amounts to 34,489*l.* 19s. The cost of the whole scheme, however, including work already done in the removal of buildings, excavation of the foundations, fittings and full equipment of the classrooms, architect's fees, wages of the clerk of works, and certain special work, will amount to about 48,371*l.*

HOSPITAL, COLINTON MAINS, EDINBURGH.—The new Colinton Mains Fever Hospital is situated at the foot of Craiglockhart Hill. Some 75 acres have been utilised for the erection of the new fever hospital, which will accommodate 600 patients, at a cost of about 600*l.* per bed. The staff accommodation, besides doctor, matron, and assistants, will be for 150 nurses and sixty servants. There are two main entrances, one from Morningside, and the other from the Colinton-road side. A dual system of drainage has been adopted, and the ventilating apparatus will allow of a change of air in the wards three times every hour, while the temperature is maintained at 70 deg. There is a bacteriological theatre, and each disorder is to have its special discharge ward. The arrangement with the laundry for disinfecting clothes applies to clothes and bedding from the city, and the bedding from any house in the city may be taken to Colinton Mains and purified. In connexion with every disorder there will be a private ward where patients may enjoy practically home comfort with greater hygienic security. The boiler-house, in a building to the east, is fitted with four Lancashire boilers. The laundry machinery will be driven by electric motors supplied from the town mains. The electric light is also from the town supply, and there will be emergency gaspipes also. The hot water will be produced by a steam main in an underground brick-built tunnel, so as to feed the calorifiers, and the baths, &c. The general offices, kitchen, dining-rooms, nurses' home and ward assistants' home are in the centre of the ward pavilions, which are in double rows to east and west, with 80 ft. between each; those to the east are for scarlet fever patients and those to the west for diphtheria, typhoid, erysipelas, measles, chickenpox, whooping cough, and typhus. These pavilions, though quite isolated, will be connected by covered ways. The whole of the work, including heating and ventilating, has been carried out under the superintendence of the City Architect, Mr. R. Morham.

FREE LIBRARY, KINGSTON.—A new free library in the Queen Anne style, in red brick and Bath stone dressings, has just been opened at Kingston-on-Thames. The new library has cost nearly 7,000*l.* The interior includes a lending library, a news-room, boys' and magazine rooms, and a reference library. Mr. Alfred Cox was the architect. The building was illustrated in our issue for June 14, 1902.

BUILDING IN LEEDS.—At the meeting of the Building Plans Committee of the Leeds Corporation on the 8th inst., 150 plans were submitted. The plans included 219 houses, the new Church of the Holy Spirit in Lodge-lane and Stratford-street, Hunslet, a set of Board Schools in Brown-lane and Ingram-road, Holbeck; and the extension of the nurses' home at the workhouse, Beckett-street.

CHURCH HALL, WALTON, SURREY.—The foundation stone has just been laid of the Church Hall now in course of erection on a site close to the Parish Church of St. Mary's. The honorary architect is Mr. A. E. Gough, and the builder Mr. H. W. Gaze.

"THE PRIORY," ST. ALBANS.—Messrs. Ryder & Son, the penny-packet seed merchants, have purchased The Priory at St. Albans, which, in the old coaching days, was known as The Bull, one of the most celebrated houses between London and Leicester. It is not proposed to pull down the house, but to use it for offices, and to erect on the garden at the rear a warehouse containing some 170,000 cubic ft., and specially designed to meet the requirements of their business. Mr. Percival C. Blow, of St. Albans, is the architect appointed to carry out the work; and Mr. Sharp, of the same city, is the builder.

MID-CHESHIRE ISOLATION HOSPITAL.—The Northwich, Winsford, and Middlewich Joint Hospital Authority have appointed Mr. Joseph Cawley, architect, of Northwich, to carry out the erection of the joint hospital. It is to comprise thirty-four beds, and it was decided that the cost, exclusive of the site and furnishing, should not exceed 8,500*l.*

WESLEYAN SUNDAY SCHOOLS, APPERLEY BRIDGE, YORKSHIRE.—The new school built for the Wesleyan Methodists of Woodhouse Grove, Apperley Bridge, was opened on the 9th inst. On the side nearest the road there is a hall, 50 ft. long by 27 ft. 6 in. wide, capable of seating nearly 300 persons. Opening out from the hall are five classrooms, while there are also an infants' room, a room for ladies' meetings, and attached to the main building is a kitchen. The hall has an open-timbered roof. The principal contractors were Mr. Jonas Totty, of Bradford, and Messrs. Wilson & Son, joiners, Bramley, the architects being Messrs. Danby & Simpson, of Leeds.

THE RAILWAY HOTEL, NORTHALLERTON, YORKS.—This hotel, situate immediately adjoining the North Eastern Railway Station, has recently been completed for Messrs. Plews & Sons, of Darlington, &c. A portion of the old house still remains, but this, together with the stable block and outbuildings, has been remodelled and brought up to date. The lower portion of the building, to the level of the first floor windows, is faced with the Huncoats Co.'s Accrington red "plastic-stamped" pressed bricks, relieved with Burmantoft's buff terra-cotta. The bay-windows and principal doorways are entirely of terra-cotta, with enrichments. The upper portion, to level of overhanging eaves, is hung with red tiles, with intermediate courses of fancy tiles, and the whole of the roofs are covered with red tiles, supplied by Mr. J. C. Edwards, Ruabon. The bar and tearoom (32 ft. by 16 ft.), divided by a glazed screen 7 ft. high, is fitted out in stained and polished mahogany. The Bowes "Well" Fires have been used to all the principal rooms, and are in colours to match the decoration of the several rooms. The entrance-halls, vestibules, and bar are laid with Maw & Co.'s black and white tiles to an approved design, the floors of tearoom and smokeroom being of wood-block on concrete, beeswaxed and dull polished. The bar and tearoom windows are of cut and embossed glass, with gilt lettering, supplied by Messrs. William Morris & Co., Fulham-road, Kensington, London. The stable fittings were supplied by Messrs. Young & Co., London. The building is lighted by electricity, the fittings to the principal rooms being of oxidised silver. The hanging sign of copper, with repousse lettering, the arc lamp brackets, and wrought iron gates were supplied by Messrs. N. & E. Spittle, Birmingham. The spandrils to porch and to frieze of oriel bay window are executed in modelled plaster by Messrs. G. Jackson & Son, London. The contract for the furnishing was placed in the hands of Messrs. Maple & Co. Mr. D. Oakley, Northallerton, was the contractor for the bricklaying, masonry, and plasterwork; Mr. R. T. Snaith, Darlington, the carpentry and joinery; Messrs. Baynes and Beck, Ripon, the tiling; Mr. Emmerson Smith, Darlington, the plumbing; Mr. Thos. Alderson, Northallerton, the painting; and the Northallerton Electric Light and Power Co. for the installation of the electric light. The whole of the work has been executed from the designs and under the personal supervision of Mr. W. Hargreaves Bourne, architect, Darlington.

SANITARY AND ENGINEERING NEWS.

RESERVOIR, MAESTEG.—Mr. M. K. North, M.Inst.C.E., has just conducted a Local Government Board inquiry into an application by the Maesteg Urban Council for sanction to borrow 30,410*l.* for the construction of a reservoir to hold 30,000,000 gallons, at Blaencwmceryn, in the hamlet of Cwmdu. Mr. Joseph Humphries, District Surveyor, prepared the plans. There was no opposition to the scheme.

CLEVEDON WATER SUPPLY.—A new pumping station has just been opened at Clevedon. The new station was designed by Mr. H. Dare Bryan, architect, Bristol. Local pennant stone, with white pointing, has been used for the walls except for the lodge, which is built of limestone, the upper part being tile hung. All the roofs are of Broseley tiles, the turrets being covered with oak shingles. The windows have Bath stone mullions and clear glass in wide lead frames. The work has been carried out by Messrs. Chancellor & Son, of Bath, under the superintendence of the architect, with Mr. W. H. Lewis, of Bristol, as clerk of works.

PROPOSED EXTENSION OF KIRKCALDY HARBOUR.—At a meeting of the Joint Committee of Kirkcaldy Town Council and Harbour Commission appointed to consider the question of the extension of Kirkcaldy Harbour, the sub-committee reported that they had made investigations as to the trade

which might be expected, and also the financial aspect. After considering the Report, the meeting agreed to recommend to the Town Council and Harbour Commission that 100,000*l.* should be spent on harbour extension, and that they employ Sir A. N. Randell, C.E., to report on the whole undertaking, taking into consideration the situation of the present harbour. They also proposed that he should be asked to prepare plans showing the best method of extending the harbour, and, if possible, to do so in such a manner that the harbour could be added to in detachments, so as to make, if desired, a large coal harbour at completion.—*Dundee Advertiser.*

SKEGNESS SEWERAGE SCHEME.—The Skegness Urban District Council have adopted the report of Messrs. Elliott & Brown, of Nottingham, upon the sewerage system, and have instructed them to prepare working drawings. The scheme embraces bacterial filters at the present sewage farm, new pumping-station, and the drainage of the Seacroft Estate. The estimated cost is 8,750*l.*

FOREIGN.

FRANCE.—M. Postel-Vinay, architect, of Paris, has obtained the first premium in the competition for the church at Patras, the cost of which is estimated at two million francs. The second premium went to another Parisian architect, M. Robert.——The jury in the competition at Tarbes for a new Hôtel de Ville have awarded the first premium to M. Gabarret, architect, of Pau; the second to M. Molia, of Tarbes.——A bridge is to be built over the Garonne, at Portet, at the confluence of the Garonne and the Ariège. The cost is estimated at 170,000 francs.——The Association Provinciale des Architectes Francais will hold its general meeting at Pau, in June.——The Municipal Council of Besançon has voted the erection of a building, to cost 366,000 francs., to include a bourse and a gymnasium.——At Rochelle, in the course of excavations for the new Ecole Supérieure, a number of coins of the fifteenth century have been found, some of them with the effigy of Henry VI. of England.——The Government have commissioned MM. Umdenstock and Roger Bouvard to erect the official pavilion of France at the St. Louis exhibition of next year. The building, which will be a faithful reproduction of the Grand Trianon, will cost nearly half a million francs.——The Municipal Council of Coulommiers have approved the plans of MM. Duval and Robida for a new theatre. The parish church in the same town is to be rebuilt, on a new site to be selected by the municipality.——The Government intend to distribute among various public buildings of Paris the paintings which decorate the Galerie des Machines, all of which are the work of well-known artists.——M. Rodin has completed the model of the monument to be raised in Paris to the memory of Puvis de Chavannes. The work will be exhibited at the New Salon next year.——The Hospice Raspail is to be shortly opened at Arcueil-Cachan; it stands on the former property of the celebrated chemist Raspail. With it will be connected a museum containing numerous pictures and political and historical souvenirs left by the Raspail family.——The first stone has been laid of the English hospital at Montboron, near Nice, to be called the "Victoria Memorial Hospital."——The museum at Delphi, designed by M. Tournaire, the architect connected with the exploration mission to Delphi, has just been opened. Various works of art have been placed in it, the most important being the bronze of the "Auriga."——The congress of French architects, which this year is to meet at Nantes, will visit, on June 7, Guéraude, Escoublac, Pouliguen, Batz, and Le Croisic. On Tuesday, the 9th, the congress will meet at Clisson, celebrated for its château and the remains of a temple of Vesta.——M. Selmersheim, Inspecteur des Monuments Historiques, has submitted to the Council of the Seine Inférieure his plans and designs for a new staircase for the Palais de Justice at Rouen. His scheme will reproduce the principal features of the staircase of 1493, as it appears in Starenbath's illustration.——The death is announced, at the age of 57, of M. Massiou, architect to the town of Rochelle, and diocesan architect under the Monuments Historiques. He was a pupil of Uchard, and member of the syndicate of the Caisse de Defense Mutuelle des Architectes.

INDIA.—The East Indian Railway Company is about to construct a new line from Ondal to Sainthia, and the Indian Government has sanctioned the expenditure for the survey.——Extensive buildings are about to be erected at the railway station at Howrah.——Dr. Viegas, of the Bombay Municipality, has suggested that land should be leased on moderate terms to such landlords as would be willing to build small houses for the working classes on modern lines. There is little doubt that, on sanitary grounds alone, this suggestion will be adopted.——The Roman Catholic cathedral at Moorgheehatta, near Calcutta, is to be enlarged, and the electric light installed.——The light cream-coloured building-stone so largely in use in the Central Provinces, seems to be preferred for delicate traceries in other parts of India, and is apparently very durable.

MISCELLANEOUS.

PROFESSIONAL AND BUSINESS ANNOUNCEMENT.—The General Manager's office of the Simplex Steel Conduit Co. has been removed from 20, Bucklersbury to Westinghouse Buildings, Strand, W.C.

COMMONS AND FOOTPATHS PRESERVATION SOCIETY.—A meeting of the Executive Committee of the Commons and Footpaths Preservation Society was held at No. 25, Victoria-street, Westminster, on Thursday last week. The Right Hon. G. Shaw-Lefevre presided. Mr. E. N. Buxton reported that the City Corporation were proceeding with their opposition to the scheme for purchasing an open space of nearly 900 acres on the eastern confines of the metropolis. The following resolution was unanimously adopted by the Committee:—"That this meeting of the Commons and Footpaths Preservation Society desires to express its great regret at the opposition threatened by the Corporation of the City of London to the Hainault Forest Bill, and earnestly hopes that the Corporation, which in the past has done so much for the open-spaces of London and its environs, will withdraw its opposition to a scheme that, in the opinion of the Society, will be of great benefit to the metropolis." It was resolved to oppose on Second Reading in the House of Commons the old Bridewell Burying Ground Bill, which seeks to over-ride the clauses of the Acts providing for the protection from building of disused burial grounds; it was also decided to oppose the Hastings Harbour District Railway Bill, under which the East Cliff at Hastings will be subjected to grave disfigurement. The Chairman reported that the Charity Commissioners had now given effect to the Society's views with reference to 290 acres of Fuel allotment at Frimley in Surrey. A clause had been inserted in the scheme under which the charity will now be administered to provide that no part of the land shall be enclosed or built upon, and that reasonable access shall be allowed to the public. The Chairman also stated that the Society had assisted to defeat a proposal to sell for building purposes 75 acres of Poor Allotments at Burghclere in North Hants. It was further decided to inquire into the action of the War Office in forming an encampment on Watchet Hill, one of the most noted view-points in Dartmoor, notwithstanding the strong local opposition to the proposal. The Secretary (Mr. L. W. Chubb) reported that upwards of 150 cases of interference with rights of way, roadside waste and common land in various parts of England and Wales had been dealt with by the Society during the past month.

THE PRESERVATION OF HISTORICAL BUILDINGS.—In the House of Commons on the 7th inst, Mr. Yoxall having asked the First Lord of the Treasury whether, in view of the proposal to erect a building in a modern style close to Shakespeare's birthplace house at Stratford-on-Avon, he will consider the advisability of appointing a committee to inquire into the propriety of establishing a national trust for the consecration of buildings of historical or biographical interest within the United Kingdom, Mr. Balfour said:—I sympathise with the hon. member in what I take to be the hon. member's object, but I am not clear as to the methods by which he proposes to carry it out, nor as to the precise meaning he attaches to the word "consecration." If this is to include purchase, compulsory or otherwise, by the State of all buildings now in private ownership which are of historical or biographical interest the scheme seems to be impracticable. If it falls short of this it will hardly be efficacious.

THE SANITARY INSTITUTE.—At an examination in practical sanitary science, held in London on May 1 and 2, 1903, eighteen candidates presented themselves. The following six candidates were awarded certificates:—O. Rosalie Addison, A. E. Battle, S. F. Corby, F. E. Glover, W. H. Hubbard, and J. W. Pearson.

MEMORIAL STATUE, GATESHEAD.—At Saltwell Park, Gateshead, a bronze statue has been erected to the memory of the late Alderman Lucas. The statue is 11 ft. in height, the figure itself being 6 ft. It shows the late Alderman in his Mayoral robes, with the cloak drawn up over one arm. The statue is the design of Mr. W. Grant Stevenson, R.S.A., of Edinburgh.

WAR MEMORIAL, SWANSEA.—At a meeting of the sub-committee appointed by the subscribers to select designs for the memorial about to be erected at Swansea to the local men who lost their lives during the recent war, five designs were chosen for submission for final selection to the general body of subscribers. The design which received most support from the sub-committee was by Mr. Lindsay Clarke, the sculptor, who won the 100*l.* premium for the best design for the Queen Victoria Memorial at Liverpool. It is proposed to erect the monument inside the eastern entrance to the Victoria Park, and to surround it with cannon captured from the Boers.—*South Wales Daily News.*

PRESENTATION TO A BOROUGH SURVEYOR.—Mr. Albert Latham, M.Inst.C.E., was on Tuesday publicly presented by the Corporation and Burgesses of Margate at the Town Hall with an illuminated address, a valuable service of silver, and a diamond ring, on the occasion of his retirement from the Borough Surveyorship after twenty-nine years' service, and on assuming the position of engineer to the new Wingham Water Scheme, which will supply the Borough of Margate and twenty parishes in East Kent with water. Mr. Latham was also recently presented with a valuable sterling silver rose bowl, and an address, subscribed to by 140 of the staff and employees of the Corporation.

THE FOREIGN CEMENT TRADE.—Mr. Consul Nugent, reporting to the British Foreign Office on the trade and commerce of Texas for the year 1902, writes from Galveston:—"There used formerly to be a large and paying business in cement from the United Kingdom, but this has gradually passed into the hands of German and Belgian traders. In 1893, out of a total of 15,816*l.* worth of cement imported, 8,614*l.* came from the United Kingdom. Last year practically none came from the United Kingdom, whilst Germany sent 22,199*l.* worth and Belgium 12,211*l.* worth. This year contracts were first offered by a British firm here, importing cement, to London dealers for some 400,000 barrels of cement for use on public works here, but on account of the price asked they went to Germany and Belgium."

CAPITAL AND LABOUR.

NEWCASTLE AND DISTRICT.—At a special meeting of members of the Newcastle, Gateshead, and Wallsend Branches of the Operative Bricklayers' Society at Newcastle, on the 8th inst., it was reported that as the result of a conference the Master Builders' Federation had offered to withdraw their demand for an alteration of rules and reduction of a penny per hour in wages if the men in the district from the Tyne to the Tees would withdraw their counter demands. The Newcastle, Gateshead, South Shields, Stockton, and Middlesbrough men claimed an advance of a penny, making the rate 11d. per hour; and the Newcastle and Gateshead Lodges also asked for an alteration in rules. The meeting decided to accept the employers' suggestion, so that work proceeds as usual, and the threatened stoppage in the building trade is obviated.

THE CARPENTERS' DISPUTE AT WALSALL.—The dispute between the Walsall Master Builders' Association and the local branch of the Carpenters and Joiners' Society as to working rules and increase of wages having been submitted to arbitration, the Board of Trade sent down Mr. A. A. Hudson, of the Inner Temple, to hold a local inquiry. His award has now been given. This provides that the rate of wages is to remain as hitherto, viz., 8½d. per hour, that the hours of labour shall be for the two winter months 7.30 and 8 to 4.30, and that the other working hours shall not be altered. Overtime at the request of the master is to be paid for as time and a quarter for the first two hours and time and a half for additional hours. Overtime on Saturdays after 1 o'clock is to be at the same rate.

LEGAL.

ACTION BY AN ARCHITECT AND SURVEYOR.

THE case of Thompson *v.* The Burnham-on-Crouch Urban District Council came before Mr. Justice Darling and a common jury this week in the King's Bench Division—an action by the plaintiff, Mr. Wm. M. Thompson, an architect and surveyor, to recover from the defendants the sum of 121*l.* 12s. 6d. for surveyor's fees due from defendants to plaintiff for services rendered and money expended. Defendants admitted the claim so far as it related to items for money expended, but with regard to the claim for services rendered they pleaded that the services of the plaintiff were included in plaintiff's duties as surveyor for them. In the alternative, defendants said they did not order the work, and, further, that the plaintiff's charges were not fair and reasonable.

Mr. Tindal Atkinson, K.C., and Mr. Burt were counsel for the plaintiff, and Mr. H. F. Dickens, K.C., and Mr. Jones for the defendants.

Mr. Atkinson, in opening the case, said the plaintiff's claim was made up of two items, *i.e.*, 53*l.* 11s, fees in connexion with a sewage scheme, and 68*l.* 1s. 6d., fees in connexion with the designing and carrying out the supply of water for the district. Proceeding, Mr. Atkinson said the plaintiff was an architect and surveyor, and had been in the habit of visiting Burnham-on-Crouch, taking a house there and residing there with his family, and in that way he became acquainted with the district. In April, 1898, the defendants were in want of a surveyor and inspector of nuisances. The salary for the two offices was 50*l.*, viz, 20*l.* for the surveyor and 30*l.* for the inspector of nuisances. Plaintiff, having some spare time on his hands, applied for the post and was appointed. When he was appointed it was explained to the plaintiff that it was unlikely that any new works would be carried out, but if new works became necessary the plaintiff would be entitled, if he was employed, to charge the usual remuneration of a professional man. His duties as surveyor were to be to survey works in existence, and to carry out the duties of the inspector of nuisances. Plaintiff discovered that the sanitary condition of the district was anything but desirable. He found that two or three sewer tanks at the mouth of the estuary were in a terrible condition. He made a report to the defend-

ants on the matter, and suggested that they should erect bacteria tanks similar to those at Sutton, which were found to work well. The Council were satisfied with the suggestion, and instructed the plaintiff to draw up plans for similar tanks. They then applied to the Local Government Board for a loan to carry out the work. It was found that the scheme would cost some 10,000*l.*, and as the population of the place was only some 2,000 the scheme was dropped, it being considered too costly. In February, 1901, plaintiff put forward an alternative and much more economical scheme, and he was instructed to prepare plans and specifications for the scheme, one involving some new sewage tanks. This work, which was carried out by the plaintiff, was completed in October, 1901, at a cost of 1,200*l.*, and upon that work the plaintiff claimed 53*l.* 11s. The other matter was about the water supply. During the autumn of 1898 there was a serious shortage in the supply of water. The supply the inhabitants had was from a well. The water being short, plaintiff called the Council's attention to the matter, and suggested that something should be done. But nothing was done till July of the following year, when the plaintiff suggested the sinking of a deep well to a water-bed some 400 ft. below the ground. Plaintiff made some trial borings into the existing supply, and he found that the then supply was only from surface water. In October the Council issued advertisements for sinking the deep well. In November plaintiff prepared plans for the water supply, and form of tender. Plans and estimates were prepared and forwarded to the Local Government Board. On January 30 the Local Government Board held an inquiry into the scheme, and in March, 1900, they approved of the scheme. Eventually a contractor's tender was accepted, and in May, 1901, the work was commenced. The contract with the contractors was settled by the plaintiff. The work was to be done to the satisfaction of the surveyor "appointed as surveyor of that contract." The work went on slowly, but at 385 ft. an excellent supply of water was found. In respect of that work the plaintiff claimed 68*l.* 1s. 6*d.* In consequence of some friction between the plaintiff and some of the members of the Council, many of them builders, who were, counsel said, erecting houses in contravention of the by-laws, he sent in his resignation in April, 1902. In the following July plaintiff sent in his account, which was disputed, and hence the present action.

The plaintiff was then called and gave evidence in substance bearing out counsel's statement.

Cross-examined: He was not a member of the Surveyors' Institution or of the Institute of British Architects, but he had served his articles with eminent firms who were. It was no part of his duty to do the work he had charged for under his original terms of employment. He made no special reports to the Council on the works in question, but embodied them in his ordinary reports. During the progress of the works he went there once a week or more. His contention was that it was no part of a surveyor's duty to construct and superintend new works.

Re-examined, the plaintiff said his view was that his appointment rendered him liable and responsible for all existing things, but not for work and labour in connexion with the creation of anything new. His appointment was a yearly one and was under the Public Health Act.

Mr. R. M. Chart, F.S.I., examined, said he had been in practice for twenty years, and for many years was with the Rural District Council of Croydon.

Mr. Tindal Atkinson proposed to ask the witness a question as to the duties to be done under the Act with regard to new work by a surveyor of a Local Authority.

Mr. Dickens objected to such evidence, and contended that plaintiff's work was covered by his appointment.

His Lordship (to Mr. Dickens): If it was stated by Mr. Croxson on plaintiff's appointment that he would be paid for new work, you say that would now be *ultra vires?*

Mr. Dickens: Yes, because the Council would be surcharged if they paid him for the work.

After a long legal argument his Lordship held that the duties of a surveyor were not defined by the statute, and that there was no agreement between the parties as to the duties. In those circumstances the evidence tendered could not be admitted.

Mr. Atkinson said he had other evidence, but would not call it. That was his case.

Mr. Dickens submitted that there was no case to go to the jury.

His Lordship thought there was a case to go to the jury, assuming that the plaintiff was engaged as surveyor, to do all the ordinary work of a surveyor acting for a Local Authority under the Public Health Act, 1875. He did not think that the 193rd Section of the statute prevented the Local Authority from making an agreement with him that if he did certain work outside the work which he was engaged to do as surveyor, such as advising them about and obtaining a fresh water supply or about altering the existing system of sewage, nor did the cases cited render such an agreement or contract between the surveyor and the Local Authority illegal.

Mr. Dickens then called Mr. W. B. Croxson, the late chairman of the defendant Council. He said he was chairman of the Council when the plaintiff was appointed. There was no special bargain that the plaintiff was to be paid for extra work.

Cross-examined: He could not recollect all that passed at the time of the plaintiff's appointment.

Mr. John Hawkins, chairman of the defendant Council, examined, said he was a member of the Council when the plaintiff was appointed. He heard all that took place and he was sure nothing was said about extra remuneration for any extra work.

Cross-examined.—There was extra work in contemplation at the time plaintiff was appointed. The new works were not mentioned for the first time when plaintiff brought them forward. He could not refer to any minute of the Council bearing out this statement.

The Rev. C. D. Gooding, Vice-chairman of the Council, corroborated.

Mr. R. Dinaway, Clerk to the Council, in cross-examination, said that casual references had been made of payment to plaintiff for extra work he had done. The late chairman, Mr. Croxson, once said, when some plans were wanted that they did not expect plaintiff to get the plans out for nothing.

The being the defendant's case, and counsel having addressed the jury, his Lordship, in summing up, pointed out that defendants admitted the claim of the plaintiff, so far as 6*l.* was concerned.

The jury, after an absence of forty-five minutes, returned into Court, and found for the plaintiff for 109*l.*—viz., 58*l.* in respect of the sewage scheme, 50*l.* for the waterworks, and 6*l.* for the out of pocket expenses.

Mr. Jones asked for judgment for the defendants on the ground that the contract between the defendants and the plaintiff was void under Section 193 of the Public Health Act, plaintiff holding an appointment as surveyor to the Council.

His Lordship said he should enter judgment for the plaintiff, in accordance with the verdict.

Judgment accordingly for the plaintiff for 109*l.* and costs.

A stay of execution was granted for fourteen days, pending an appeal by the defendants.

CASE UNDER THE LONDON BUILDING ACT.

AT the North London Police Court, on May 5, before Mr. Fordham (adjourned hearing), the Pyrogim Syndicate Ltd. were summoned by the London County Council for erecting a building of a temporary character without their licence.

The structure, which was about 40 ft. by 30 ft., was entirely constructed of, and covered with, wood, the roof being covered with felt, and it contained a combined boiler and engine, with an iron chimney-shaft.

The defendants had obtained a licence from the Islington Borough Council under Section 84 of the London Building Act, and the powers transferred to them in reference to that section by the Local Government Act, 1899.

Mr. Daldy for the Council contended that this was a wooden building, to which Section 84 did not apply, and quoted the judgment in the case of the London County Council *v.* Westminster City Council in support of this contention.

Mr. Bramall, solicitor for the defendants, contended that it was a structure coming under that section, and that the Borough Council were right in licensing the same, and Mr. J. P. Barber, the Islington Borough Surveyor, gave evidence that the licence had been granted and the question had not been raised whether there was any doubt as to his Council having the power to license such a structure.

The Magistrate decided that this was a wooden building, and therefore came under Sections 82 and 83, and required the consent of the London County Council, and was not a structure within the meaning of Section 84, which section did not mention "building" except in connexion with a temporary structure erected by a builder for his use during work to a building.

He also (after visiting the *locus in quo*) made an order for its demolition, with a fine of 20s. and 5 guineas costs.

NEWCASTLE ANCIENT LIGHTS' CASE.

THE hearing of the case of Cowper *v.* Laidler concluded, before Mr. Justice Buckley, in the Chancery Division, on the 14th inst.—an action by the plaintiff, Joseph Cowper, residing at 18, Dean-street, Newcastle, to restrain by injunction the defendant, Mr. George G. Laidler, of Northumberland-street, Newcastle, from erecting any building upon, or adjoining, premises belonging to the defendant in Northumberland-street so as to darken, injure, or obstruct any of the ancient lights or windows of the plaintiff's cottage in Dove-court. Plaintiff also sought to stop the defendant from pulling down any part of the cottage.

Mr. Astbury, K.C., in the course of opening the case for the plaintiff, said that the plaintiff's cottage was a very old one, but the site would be valuable for building purposes later on. The cottage was situated down a passage, and defendant had deposited certain plans with the Town Council, under which he proposed to narrow the passage-way and put up certain buildings which would have interfered with plaintiff's eaves, but these plans were altered. The only two points in dispute now were the obscuration of the lights of the cottage looking to the south, and the question of whether that part of the cottage situated over the west passage and consisting of a lumber-room or chamber did or did not belong to the plaintiff. Defendant had cut the roof of the cottage and proposed to build a boundary-wall which would take away the lumber-room part of the premises. The large buildings which defendants proposed to erect would take away the whole of the western light to the cottage, and the result would be that although the cottage was in a dark passage, it would, if defendants' buildings were put up, be in an absolute pit or hole. The light obtained from the skylight would also be interfered with.

In reply to his Lordship Mr. Buckmaster, K C (for the defendant) said he did not admit that the plaintiff's lights were ancient.

Mr. Astbury, proceeding, said that the cottage in question was about 100 years old, plaintiff having been in possession over fifty years. Defendant's predecessors brought an action of ejectment against the plaintiff over twenty years ago, and it was dismissed with costs. Plaintiff had always excluded defendant from any right to the lumber-room.

Evidence having been given in support of the plaintiff's case,

Mr. Buckmaster, on behalf of the defendant, denied that the plaintiff's light would be materially affected by the buildings proposed to be erected by the defendant. He also contended that the plaintiff had no title to the lumber-room.

Several witnesses were called on behalf of the defence, and in the result his lordship in giving judgment, said the plaintiff sued on several causes of action, but there were only two which had been argued, and upon which alone he proposed to adjudicate. First he had to consider whether the plaintiff was entitled to what he would call the disputed roof, and, secondly, whether he was entitled to an injunction to restrain defendants from erecting certain buildings so as to obscure his lights. He would deal first of all with the question of the disputed roof. After reviewing the evidence, his lordship held that the lumber-room was part of the Northumberland-street property, and never was in adverse possession of the plaintiff. He also held that there would be a material obscuration of the plaintiff's light by the defendant's proposed buildings, but he would give no judgment then as to the relief the plaintiff should have. This he would reserve for consideration on a future occasion. As both parties were wrong on certain points he would make no order as to costs.

Judgment accordingly.

PATENTS OF THE WEEK:

APPLICATIONS PUBLISHED.*

17,827 of 1902.—W. L. WISE (The Salubra Wall-cover Co.): *Manufacture of Wall-paper.*

Wall-paper, the rear surface of which is smooth, while upon its front surface a damask-like effect is produced by flutings which run in different directions or are of different patterns, and are formed in a suitable substance with which the front surface of the paper is coated.

5,317 of 1902.—H. KOLSTER: *Siphon Flushing Cisterns.*

Siphon flushing cisterns in which the flushing action is produced by the raising of the water-level above the inlet to the flush pipe, the arrangement being characterised by the fact that the float acting upon the admission cock is of such volume that the displacement of water caused by its complete immersion results in an overflow of water into the flush pipe, thus starting the siphon action.

12,833 of 1902.—G. V. EVERS: *Bricks for Furnaces, Crowns, or Arches, the Fireholes of Kilns and Ovens, and other like Purposes.*

This consists of an arrangement whereby, when placed in position, the bricks interlock or mutually support each other.

1,231 of 1903.—R. ILLEMANN: *Method of Manufacturing and Composition for the Manufacture of Artificial (Plain or Corrugated) Slates or Roof Tiles.*

Artificial slates or roof tiles composed of a mixture of cement and coke breeze, tufa, ground clinkers, and sharp sand.

2,096 of 1903.—G. WRUCK: *Slabs for Wall Constructions.*

A slab for the construction of fireproof and soundproof walls consisting of a porous or cellular artificial stone, two flaps with slanting sides projecting from the lower edge of the stone, two recesses corresponding in size and position to the flaps at the lower edge, a feather along the upper edge and one vertical side of the stone and a groove along the bottom edge and the other vertical edge of the stone.

4,331 of 1903.—E. FUNKE: *Sanitary Corner Plates.*

A corner plate for the corners of stairways, halls, rooms, and the like, comprising a main body provided with a disinfectant receiving-chamber adapted to retain the disinfectant upon the back of said main body.

* All these applications are in the stage in which opposition to the grant of Patents upon them can be made.

9,035 of 1902.—A. HARDWICK: *Separators for Sifting Cement and Other Goods.*

Separators for sifting cement and other goods, in which a blast of air is driven to the base of a vibrating sieve, said sieve having an additional jerky motion imparted to it, and a dust collector comprising corrugated baffle plates.

22,480 of 1902.—F. KALWEIT: *Building Blocks.*

A building block consisting of a metal frame of suitable cross-section containing cement.

9,932 of 1902.—C. W. KREUSSLER: *Combination Folding Bath and Bedstead.*

This consists in the combination of a folding bath and bedstead, with flexible outlet and overflow pipes or tubes and provided with a hot or cold water supply, means for adapting the said bath for use as a bedstead when not in use as a bath, and when out of use capable of being folded into a vertical position, and having the appearance of a wardrobe or like cabinet.

10,240 of 1902.—E. W. LANCASTER: *Baths.*

A collapsible bath composed of a suitable waterproof material sheathed with metal at one end, if necessary, a jointed metal or other extensible framework to support the top of said bath, and a cabinet or cupboard into which said bath and frame can be collapsed when not in use.

12,092 of 1902.—W. DREYER: *Ventilating Windows.*

This consists in the combination of a light frame secured to the roof, a top frame and one or more intermediate frames, with a lever system consisting of two pairs of levers, of which the ends facing each other are pivotally connected by a joint arm or link, supports or arms connecting the outer ends of the levers with the top frame, and like supports connecting a point or points of the levers between their outer ends with one or more of the intermediate frames.

12,205 of 1902.—H. W. HANWELL: *Glazing Roofs and Structures.*

This invention relates to rafters or bars in one piece of wood and supporting strips of lead by which the sheets of glass are held. The top of the rafter or bar is formed with a central projection and is slotted on each side. The strip of lead has its sides doubled back upon themselves as is usual, and is bent so as to cover the projection. The edges formed by the doubling enter the slots, whilst the edges of the strip lie one on each side of the projection. The sheets of glass rest on the top of the rafter or bar, having the projection between them, and when they are in place the edges of the strips are bent down on the glass.

17,239 of 1902.—J. MOSS: *Window Sashes and Frames.*

A combination top and bottom window-sash and frame, consisting of a top and bottom sash, in the styles of which are pivot-pins, said pivot-pins turning in slides, said slides having a wedge-shaped vertical surface on the inside of the building, and capable of moving vertically between the parting beads of a window-frame, and a box-frame having an upward extension above the lower or inner sash, said slides being lifted by a sash-line passing over a pulley and supporting a weight, in combination with a fastener secured above the meeting-rail of the bottom sash and a combination dust-excluding strip and lock on the inside of each style, said strip and lock having a series of oblong holes and a finger-hole, and held to the style by screws.

6,896 of 1902.—W. PICKERING, S. A. PICKERING, and J. BROMLEY.—*Apparatus for Sanding Tramway Lines.*

This consists of a tube, on the delivery end of which is a slot covered by a sliding-door, in which is also a corresponding slot. It also consists of a lever connected to one end of the sliding-door, and the lower end of said lever is attached to a transverse rod, or rocking-shaft, which is moved round by a rod, or chain, extending along under the car to the platform, where it is connected to a lever, which is held in position by a spring-catch and actuated by a treadle. A spring is fitted so as to cause the sliding-door to be moved in the opposite direction when the aforesaid rod is released. When it is required to sand the tram-rails, the treadle is pressed down, causing the lever to pull the rod, or chain, thereby bringing the slot in the tube and the corresponding slot in the sliding-door directly opposite each other, and thus allowing the sand to flow out. The flow of sand is regulated by a series of notches cut, or formed in the spring catch. When sufficient sand has been allowed to flow, the catch is knocked off, and the door slides back by the action of the spring and closes the slot.

8,744 of 1902.—F. TRIER: *Machinery for Working Stone and the Like.*

In machines for dressing stone with circular roller cutters, the construction of machines and tool-carriers in which the stone, placed on a crank-driven reciprocating table is acted upon by two sets of cutters on the cutter-carriers, mounted on slides, sliding on a vertical adjustable slide, each set of cutters consisting of two, or more than two, cutters placed side by side in the direction of the travel of the stone, and capable of being adjusted to work on different levels for the purpose of working the material by the process called step-cutting.

11,235 of 1902.—W. POWELL: *Paving-blocks and Vulcanising and Preserving Timber.*

A process of vulcanising and solidifying timber, consisting in boiling the timber in a solution of syrup of sugar, or sugar liquor, then heating such timber saturated with the syrup of liquor by hot dry air, and driving off the moisture and solidifying or caramelising the sugar therein.

11,781 of 1902.—J. B. LAWRIE: *Bricks for Arches.*

This invention relates to bricks for arches, and is especially applicable to arches in furnaces, kilns, and the like, which are subject to great variations in temperature. The invention consists in making only about half (preferably the lower half) of the sides radial, while the upper half of the side surfaces is not in the same plane as the lower half, but is above it on one side, and below it on the other side. If the radial lines of the lower surfaces be produced to the top of the brick, they will give approximately the points from which the other planes commence. On one side of the brick the plane is carried from its corresponding point outwards, a certain amount to about the middle of the brick, where it is joined to the radial plane by another plane either at right angles, or at an acute angle, or at an obtuse angle, to the radial surface. The other side of the brick is arranged in a manner exactly opposite to the above—that is, the upper plane is carried inwards to about the middle of the brick; therefore, approximately parallel to the plane on the other side, and joined to the radial plane by another plane either at right angles or at an obtuse angle, or at an acute angle to the radial surface. The bricks forming the arch will thus be locked together, and there will be no liability for any of the bricks to get so loose as to fall out owing to the expansion and contraction of the arch.

28,332 of 1902.—J. FERGUSON: *Fire-resisting Floors, Ceilings, Roofs, Lintels, and the Like.*

This relates to the provision of straight or bent tee-irons or bars of any suitable shape and strength, inserted and encased in a concrete slab of which they form a part, and the application of hoop iron or wire rods, straight or bent, of any desired width and thickness laid on the top or bottom, or partly over and partly under the aforesaid tee-iron bars. The tee-iron or bars may be bent to any suitable shape for the purpose, and the flanges may be either at the top or bottom. The hoop-iron or wire rods may be laid crosswise, lengthwise, or interlacing each other, and may be bent to any shape suitable for the purpose. The tee-iron or bars may be supported at the ends on a piece of iron, steel, or other material, which may be plain, notched, or otherwise treated. Iron, steel, or other bars, or any other form of the same material may rest on or be fixed to the bottom flange of the joist for the purpose of attaching a suitable arrangement for forming a flat ceiling; or a flat ceiling may be formed by a concrete slab containing the tee-iron, or other bars and hoop-iron or rods, and the space over this be filled in any manner and with any material that is suitable for the purpose. The tee-iron bars and the hoop-iron or rods may also be used in combination with concrete for the purpose of forming lintels.

MEETINGS.

FRIDAY, MAY 15.

Architectural Association.—Members' supper, at the Hotel Great Central, Marylebone-road, 7.30 p.m.

Sanitary Institute.—Annual Dinner, Richelieu and Medici Rooms, Hotel Cecil. 7 p.m.

SATURDAY, MAY 16.

Edinburgh Architectural Association.—Visit to Stirling (to Castle and Church).

MONDAY, MAY 18.

Royal Institute of British Architects.—Professor Sir Martin Conway on "The Beginnings of the Egyptian Style of Architecture." Lantern slides. 8 p.m.

Surveyors' Institution.—Annual meeting,

Society of Arts (Cantor Lectures).—Mr. W. W. Beaumont on "Mechanical Road Carriages." IV. 8 p.m.

TUESDAY, MAY 19.

Royal Institution.—Professor G. H. Darwin on "The Astronomical Influence of the Tides. II. 5 p.m.

Society of Arts (Applied Art Section).—Mr. Cyril Davenport, F.S.A., on "Mezzotints." 4.30 p.m.

Society of Designers.—Mr. J. J. Brownsword on "The Form and Features of the Human Head." 8 p.m.

The Anthropological Institute.—(1) Exhibit of Antiquities from the north-west frontier of India, by M. Longworth Dames. (2) Ancient Pottery Kilns at Sawankalok, Siam, by Mr. H. Lyle; communicated by Mr. C. H. Read, F.S.A. 8.15 p.m.

WEDNESDAY, MAY 20.

Builders' Foremen and Clerks of Works' Institution.—Ordinary meeting of the members. 8 p.m.

THURSDAY, MAY 21.

Glasgow Architectural Association.—Annual excursion: Falkland Palace.

London Master Builders' Association.—Council Meeting. 4 p.m.

SATURDAY, MAY 23.

Incorporated British Institute of Certified Carpenters.—Visit the new Gaiety Theatre in course of erection. 3 p.m.

SOME RECENT SALES OF PROPERTY:

ESTATE EXCHANGE REPORT.

April 25.—By FRANK LLOYD & SONS (at Chester).

Stamford Bridge, Cheshire.—Milton Brook Lodge and 50 a. 2 r. 1 p., f., p	£4,025
Malpas, Cheshire.—Cuddington Woods, area 29 a. 1 r. 28 p., f., p.	1,570

April 27.—By W. H. SHINER & WINTER (at Axbridge).

Axbridge, Somerset.—The Court and 0 a. 3 r. 21 p., f.	1,500
Three freehold cottages and 0 a. 0 r. 13 p.	340
Freehold garden ground, 0 a. 1 r. 9 p.	110
Freehold house and 0 a. 1 r. 13 p.	410
Stable, buildings, and yard, 0 a. 1 r. 20 p., f.	370
Various enclosures of land, 88 a. 3 r. 36 p., f.	5,095
Cheddar, Somerset.—Enclosures of pasture, 11 a. 3 r. 7 p., f.	1,330
Orchard lands, 5 a. 3 r. 35 p., f.	885
Farm buildings, yard and 6 a. 0 r. 18 p., f.	850
Freehold garden ground, 10 a. 3 r. 28 p., f.	1,388

April 28.—By W. H. SHINER & WINTER (at Yatton).

Compton Bishop, Somerset.—Enclosures of land, 9 a. 0 r. 36 p., f.	650
Barton, Somerset.—Nut Tree Farm, 31 a. 3 r. 19 p., f.	1,150
Barton Farm, 119 a. 1 r. 3 p., f.	4,250
Two cottages and orchard, 1 a. 0 r. 4 p., f.	160
Orchard lands, 2 a. 3 r. 17 p., f.	181
Various enclosures, 22 a. 2 r. 16 p., f.	835

April 29.—By A. W. TAYLOR & CO. (at Putney).

Barnes, 1 to 5, High-st. (S), u.t. 54 yrs., g.r. 26*l.*, y.r. 199*l.* 10s.	3,325
Putney.—4, Redgrave-rd., u.t. 63 yrs. g.r., 5*l.* 5s., y.r. 30*l.*	300
Wandsworth.—Burr-rd., two freehold building plots	515

May 1.—By ROBERTS, SON, & TORY (at Yeovil).

Maperton, Somerset.—Clapton Farm, 159 a 2 r., f., y.r. 195*l.* 15s.	3,000
Clapton Barn Farm, 110 a. 2 r. 22 p., f., y.r. 110*l.*	1,825
Bratton St. Muir, Somerset.—Church Farm, 154 a. 2 r. 34 p., f., y.r. 207*l.*	3,675

By FAREBROTHER, ELLIS & CO. (at Kingston).

Kingston, Surrey.—Burton-rd., seven plots of land, f.	532
Chesterfield-rd., twelve plots of land, f.	880

May 2.—By G. A. WILKINSON & SON (at Huntingdon).

Broughton, Hunts.—The Manor Farm, 287 a. 3 r. 3 p., f., y.r. 240*l.*	5,050
Broughton Lodge (or the Hungry Hall Farm), 236 a. 0 r. 19 p., f., y.r. 150*l.*	2,800
The Manor of Broughton, producing quit rents of 29*l.* 13s. 4½d. per annum	850
Warboys, Hunts.—Two enclosures of land, 15 a. 3 r. 9 p., f.	475

May 4.—By ELGOODS.

Regent's Park.—4, Melcombe-pl., u.t. 33 yrs., g.r. 5*l.* 5s., p.	750
Fulham.—479, Fulham-rd., u.t. 50 yrs., g.r. 7*l.* 10s., y.r. 80*l.*	760

By HILLYER & HILLYER.

Holloway.—54 and 56, Beversbrook-rd., u.t. 64 yrs., g.r. 14*l.*, y.r. 96*l.*	1,075

By CHESTERTON & SONS.

Kensington.—8, Upper Phillimore-gdns., u.t. 42½ yrs., g.r. 25*l.*, p.	3,000
Bayswater.—1 to 10, Leinster-yard (stabling), f., y.r. 457*l.*	10,000
102 and 104, Westbourne-gr. (S.), f., y.r. 60*l.*	13,500
Clapham.—112, Clapham Pk.-rd., f., y.r. 26*l.*	410
76, Park-pl., f., w.r. 20*l.* 16s.	245
Worcester Park, Surrey.—Hampton-rd., Stanley, Knighton, Livingstone, Maisonette, and Glynwood, u.t. 98 yrs., g.r. 30*l.*, e.r. 160*l.*	1,230

By ALFRED RICHARDS.

Winchmore Hill.—Vicar's Moor-lane, Forster's Cottages (three), f., y.r. 48*l.*	860

By WALTER VINCENT.

St. John's Wood.—49 and 51, Townshend-rd., u.t. 31 yrs., g.r. nil, y.r. 84*l.*	790
53 and 55, Townshend-rd., u.t. 31 yrs., g.r. 8*l.* 9s., y.r. 94*l.*	875
26, 28, and 30, Woronzow-rd., u.t. 31½ yrs., g.r. nil, y.r. 126*l.*	1,270
12, Acacia-rd., u.t. 31½ yrs., g.r. 10*l.*, y.r. 50*l.*	440

By WEATHERALL & GREEN.

Oxford-st.—Newman-st., i.g.r's. 615*l.*, u.t. 77 yrs., g.r. 285*l.*	7,400
Newman-passage-mews, i.g.r. 35*l.*, u.t. 77 yrs., g.r. 10*l.*	550
Holborn.—37, Great Queen-st. (S), area 2,550 ft., f., y.r. 150*l.*	4,500
Gray's Inn-rd.—4, Sidmouth-st., f., e.r. 65*l.*	1,170
Teddington.—Broom Water West, Clovelly, f., e.r. 100*l.*	1,500

By CURTIS & SHARP (at Stratford).

East Ham.—Rutland-rd., eight plots of building land, f.	360
West Ham.—26 and 28, Park-rd., f., w.r. 54*l.* 12s.	620
Plaistow.—1, St. Andrew's-rd., u.t. 66½ yrs., g.r. 3*l.* 15s., e.r. 32*l.*	360

May 5.—By DEBENHAM, TEWSON, & CO.

Hampstead-road.—Robert-st., i.g. rents 65*l.*, u.t. 11½ yrs., g.r. 20*l.*, with reversion	280
Norwood.—Thurlow Hill, f.g.r. 9*l.*, reversion in 63½ yrs.	230
35, Belvedere-rd., u.t. 54½ yrs., g.r. 11*l.* 13s. 4d., y.r. 50*l.*	500
Belvedere-d., a profit rental of 13*l.* 6s. 8d. for 54½ yrs.	280

By HAMPTON & SONS.

Wimbledon.—Southey-rd., a freehold plot of land	126

By MULLETT, BOOKER, & CO.

Hyde Park.—4, Hyde Park-gdns. and 4 Hyde Park Gardens-mews, u.t. 30½ yrs., g.r. 56*l.* 14s., p.	6,300

By MARK LIELL & SON.

Mile End.—3, Halford-st., u.t. 34½ yrs., g.r. 3*l.*, y.r. 36*l.*	235
71, Clinton-rd., u.t. 39½ yrs., g.r. 4*l.*, w.r. 39*l.*	290
Bow.—7 and 8, Landseer-rd., u.t. 34 yrs., g.r. 8*l.* 8s., y.r. 64*l.*	700

10 and 11, Rounton-rd., u.t. 59 yrs., g.r. 7*l.* 10s., w.r. 52*l.* £455
81 and 83, St. Paul's-rd., u.t. 64 yrs., g.r. 10*l.*, y.r. 77*l.* 16s. 700
Bromley-by-Bow.—96 to 104 (even), High-st.; 1 to 17 (odd), St. Leonard-st.; and 1 to 11 (odd), Priory-st., u.t. 73 yrs., g.r. 150*l.*, w.r. 510*l.* 14s. 270
Wanstead.—35, Grove-rd., f., e.r. 40*l.* 420
Forest Gate.—49, Tower Hamlets-rd., and two plots of building land adjoining, f., e.r. 55*l.* ..
By MADDISON, MILES & MADDISON (at Halesworth).
Chediston, Suffolk.—The Duke of Wellington p.h. and 16 a. 2 r. 22 p., f., y.r. 28*l.* 400
By E. & H. LUMLEY.
Battersea.—24 and 26, Meyrick-rd., f., w.r. 62*l.* 8s. 89 to 103 (odd), Meyrick-rd., f., w.r. 237*l.* 18s... 475
Meyrick-rd., f.g.r.'s 32*l.*, reversion in 46 yrs. .. 680
111 and 113, High-st., f., w.r. 44*l.* 4s..... 2,760
Tooting.—29 to 45 (odd), Trevelyan-rd., f., w.r. 245*l.* 14s. 945
Westminster.—Rochester-row, f.g.r. 20*l.*, reversion in 53 yrs..... 420
Pimlico.—Vauxhall Bridge-rd., f.g.r. 20*l.*, reversion in 53 yrs..... 2,660
May 6.—By BOYTON, PEGRAM, & BUCKMASTER.
Fulham.—48 to 82 (even), Parson's Green-la., with yard and buildings in rear, area 19,000 ft., f., w.r. 574*l.* 2s. 620
10, Parson's Green-la., area 15,000 ft., f., p..... 675
657 and 661, Fulham-rd., u.t. 11 yrs., g.r. 20*l.*, w.r. 84*l.* 10s. 5,750
58, Laundry-rd., u.t. 83½ yrs., g.r. 5*l.*, w.r. 33*l.* 16s. 1,175
106 to 112 (even), New King's-rd. (S.), u.t. 78 yrs., g.r. 41*l.*, y.r. 177*l.* 135
1 to 6, Draycott-mews, u.t. 78 yrs., g.r. 12*l.*, w.r. 93*l.* 10s. 225
Notting Hill.—108, Golborne-rd. (S.), u.t. 63 yrs., g.r. 10*l.*, y.r. 60*l.* 1,485
Wandsworth.—Point Pleasant, Langholm Laundry, area 7,000 ft., f., y.r. 60*l.* 450
Mortlake.—Orchard-rd., a range of stabling premises with cottage, u.t. 61½ yrs., g.r. 21*l.*, y.r. 70*l.* 540
Hammersmith.—100, Greyhound-rd., laundry premises, u.t. 89½ yrs., g.r. 12*l.* 10s., y.r. 60*l.* 650
By J. G. DEAN & Co.
Tooting.—3, Franciscan-rd., f., y.r. 40*l.* 490
Merton.—2 and 4, Avenue-cottages, f., w.r. 29*l.* 18s. 260
By FOSTER & CRANFIELD.
Putney.—20, Dryburgh-rd., u.t. 85 yrs., g.r. 5*l.*, y.r. 70*l.* 950
5, Attney-rd., u.t. 75 yrs., g.r. 8*l.* 8s., e.r. 55*l.*.. 600
By FRANK JOLLY & Co.
Clapton.—6, Muston-rd., u.t. 79½ yrs., g.r. 2*l.* 15s. y.r. 38*l.* 430
By GEO. E. LUCK.
Stroud Green.—171, Mount View-rd., u.t. 88½ yrs., g.r. 10*l.*, e.r. 65*l.* 585
Crouch End.—17, Weston-pk., u.t. 78½ yrs., g.r. 9*l.*, e.r. 60*l.* 720
By NOTT, CARTWRIGHT, & ETCHES.
Pimlico.—9, Hugh-st., u.t. 23 yrs., g.r. 5*l.* 10s., y.r. 55*l.* 2,520
By D. SMITH, SON, & OAKLEY.
Hackney.—Horton-rd., f.g.r.'s 20*l.*, reversion in 54½ yrs. 350
Eleanor-rd. North, f.g.r.'s 25*l.*, reversion in 54½ yrs..... 400
By VICTOR VAUGHAN.
St. Pancras.—182, Euston-rd. (Turkish Baths), f., y.r. 115*l.* 210
Regent's Park.—45, Clarence-gdns., and 76, Little Albany-st., u.t. 20 yrs., g.r. 8*l.* 8s., w.r. 119*l.* 12s. 1,800
By DOUGLAS YOUNG & Co.
Brixton.—57, Railton-rd. (S.), u.t. 65½ yrs., g.r. 8*l.*, y.r. 40*l.* 1,900
Battersea.—4, Kersley Mews, u.t. 74½ yrs., g.r. 5*l.*, w.r. 27*l.* 6s. 430
City of London.—36 to 41, Upper Thames-st., area 22,900 ft., building lease for 80 yrs., let at per annum 700
Upper Thames-st., a riverside site, area 21,600 ft., building lease for 80 yrs., let at per annum 560
By WYATT & SON (at Chichester).
Newfishbourne, Sussex.—Willow Cottage, f., p... 430
By W. BROWN & Co. (at Berkhamstead).
Dudswell, Herts.—Cottage Farm, 1 a. 3 r. 20 p., f. 700
The three-cornered field, 3 a. 2 r. 11 p., f..... 560
Three enclosures of pasture, 11 a. 3 r. 38 p., f. .. 1,500
By A. E. GREEN & Co. (at Horsham).
Horsham, Sussex.—2 to 5, Barrington-rd., f., w.r. 70*l.* 4s. 995
13D, Barrington-rd., and 6, Depot-rd., f., w.r. 37*l.* 14s. 510
7, 8, 13, and 14, Depot-rd., f., w.r. 70*l.* 4s. 975
6, 7, 8, 8a to 8i, Cradock-ter., f., w.r. 193*l.* 17s. 4d. 2,000
May 7.—By W. BRADBEAR & SON.
Canonbury.—129, Petherton-rd., u.t. 46½ yrs., g.r. 7*l.* 7s., e.r. 68*l.* 525
14, Grosvenor-rd., u.t. 46½ yrs., g.r. 8*l.* 10s., e.r. 60*l.* 530
By E. H. HENRY.
Clapham.—188, Clapham-rd., u.t. 42 yrs., g.r. 16*l.* e.r. 90*l.* 600
Tooting.—Brightwell-cres., f.g.r.'s 72*l.*, reversion in 91 yrs. 800
Himley-rd., f.g.r.'s 38*l.* 10s., reversion in 91 yrs. 1,700
By J. & R. KEMP & Co. 910
Regent's Park.—82, Osnaburgh-st. (S), u.t. 20 yrs., g.r., 20*l.*, p..... 205
By KEMSLEYS'.
Romford, Essex.—Hornchurch-rd., four freehold residences, y.r. 118*l.* 2,055
1 and 2, Burchclere-villas, f., w.r. 41*l.* 12s. 470
1 and 2, Edith-villas, f., w.r. 41*l.* 12s..... 475
By C. C. & T. MOORE.
Poplar.—17, 19, and 21, Carmen-st., f., w.r. 66*l.* 6s. 770
23, 24, and 25, Charles-st., u.t. 47½ yrs., g.r. 6*l.* 6s., w.r. 78*l.* 625
63 to 69 (odd), Upper North-st. (S.), u.t. 45 yrs., g.r. 20*l.*, y.r. 140*l.* 1,260
3 to 7, Andrew-st., u.t. 36 yrs., g.r. 15*l.*, w.r. 119*l.* 12s. £850
Limehouse.—1 to 9, Silver-st., u.t. 42 yrs., g.r. 27*l.*, w.r. 256*l.* 3s. 1,800
Plaistow.—387, Barking-rd., f., e.r. 35*l.* 560
Harlesden.—35, St. Mary's-rd., u.t. 86½ yrs., g.r. 6*l.*, y.r. 40*l.* 375
Whitechapel.—7, Whitechapel-rd. (S), c., y.r. 125*l.* 2,300
By R. W. MANN & SON.
Paddington.—148, 156, and 160, Blomfield-ter., u.t. 39½ yrs, g.r. 30*l.*, y.r. 195*l.* 1,080
Richmond, Surrey.—6, Park-hill, u.t. 56 yrs., g.r. 4*l.*, q.r. 70*l.* 630
By NEWBON, EDWARDS, & SHEPHARD.
Clapton.—2 to 14 (even), Rushmore-rd., u.t. 85 yrs., g.r. 47*l.* 10s., w.r. 269*l.* 2s. 1,580
Forest Hill.—130, Woodvale, u.t. 74 yrs., g.r. 6*l.* 10s., y.r. 36*l.* 250
By STIMSON & SONS.
Lewisham.—Loam Pit Hill, f.g.r. 48*l.*, reversion in 83 yrs. 1,275
Loam Pit Hill, f.g.r. 40*l.* 10s., reversion in 83 and 92 yrs. 1,070
Brixton.—11, 13, 15, and 17, Knowle-rd., u.t. 59 yrs., g.r. 22*l.* 4s., w.r. 239*l.* 4s..... 1,495
59 to 73 (odd), Knowle-rd., u.t. 59 yrs., g.r. 42*l.* 8s., w.r. 486*l.* 4s. 2,895
Camberwell.—53 and 55, Westmacott-st., f., w.r. 67*l.* 12s. 805
Walworth.—42, East-st. (S), f., y.r. 40*l.* 550
Kilburn.—9 and 11, Aldershot-rd., u.t. 80½ yrs., g.r. 14*l.*, y.r. 76*l.* 710
Walthamstow.—74 and 76, Vallentin-rd., f., w.r. 105*l.* 6s. 1,020
Vallentin-rd., two plots of land, with stabling, &c., f. 160
Vallentin-rd., two plots of building land, f. ... 155
Victoria-rd., three plots of building land, f..... 120
North Bank-rd., eighteen plots of building land, f. 450
Wood End-rd., six plots of building land, f... 200
Gorleston, Suffolk.—77 to 80, Cliff Hill, f., q.r. 42*l.* 1s. 510
By WM. WESTON.
Notting Hill.—325, Ladbroke-gr., u.t. 64 yrs., g.r. 10*l.* 10s., w.r. 74*l.* 2s. 360
Paddington.—2 and 4, Alfred-rd., u.t. 45 yrs., g.r. 11*l.*, y.r. 72*l.* 640
Walthamstow.—Grove-rd., corner plot of building land, f. 345
Maida Vale.—150, Elgin-av., u.t. 80 yrs., g.r. 15*l.* 10s., p..... 650
By G. A. WILKINSON & SON (at Fenny Stratford).
Simpson, Bucks. — Parts of Bodley's Farm, 44 a. 2 r. 4 p., f. 1,350
Walton, Bucks.—The Pine Tree Inn and 0 a. 3 r. 20 p., f., y.r. 14*l.* 410
Five enclosures of pasture, 14 a. 1 r. 26 p., f. .. 450
Two enclosures of woodland, 2 a. 3 r. 2 p., f. .. 210
The Manor Farm, 306 a. 2 r. 37 p., f..... 8,300
The Walnut Tree Farm, 191 a. 3 r. 28 p., f., .. 2,030
Mount Pleasant and 25 a. 2 r. 32 p., f. 1,150
Sixteen freehold cottages and 1 a. 2 r. 32 p..... 1,050
By BATCHELAR & SON (at Croydon).
Kenley Common, Surrey.—Elm-gr., and 1 a 0 r. 30 p., f..... 890
Thornton Heath, Surrey.—35, Bensham Manor-rd., f., p. 450
May 8.—By BEADEL, WOOD, & Co.
Rettendon, Essex.—Hyde Hall Farm, 272 a. 3 r. 18 p., t. and c., p..... 2,000
The Manor of Hyde Hall, with its rights, fines, &c. 130
By DEASON & PENNY.
Harlesden.—45, Craven Pk., u.t. 73 yrs., g.r. 10*l.*, y.r. 42*l.* 380
73, Fortune Gate-rd., u.t. 86 yrs., g.r. 6*l.*, e.r. 32*l.* 250
By HARDS & BRADLY.
Reigate, Surrey.—Wray Pk., Laurel Bank and 1 a., f., p..... 2,550
Wandsworth.—9, Wiseton-rd., f., y.r. 26*l.* 450
Leytonstone.—72, Harrow-rd., f., w.r. 31*l.* 4s. .. 310
By HENRY HOLMES & Co.
Holloway.—9, Wedmore-st., with factory, area 4,462 ft., f., e.r. 200*l.* 2,200
33, Hampden-rd., u.t. 61½ yrs., g.r. 3*l.* 10s., w.r. 41*l.* 12s. 315
By BRADSHAW, BROWN, & Co.
Westcliff-on-Sea, Essex.—St. Helen's-rd., St. Aubyn's, f., y.r. 38*l.* 560
Poplar.—132, High-st., f., y.r. 30*l.* 680
11, Cotton-st., f.. y.r. 23*l.* 400
4, Wade-st., f., e.r. 26*l.* 315
Bromley-by-Bow.—70 and 72, Teviot-st., u.t. 62 yrs., g.r. 8*l.* 10s., w.r. 67*l.* 12s..... 570
116 to 122 (even), Teviot-st., u.t. 62 yrs., g.r. 16*l.*, w.r. 122*l.* 4s. 1,055
81, 83, and 85, Blair-st., u.t. 70 yrs., g.r. 12*l.* 15s., w.r. 96*l.* 850
Poplar.—49, Garford-st., f., y.r. 27*l.* 330
57, Garford st., u.t. 30 yrs., g.r. 3*l.*, w.r. 31*l.* 4s. 195
33, Morant-st., u.t. 53½ yrs., g.r. 3*l.*, y.r. 30*l.*.. 280
By A. PREVOST & SON.
Commercial-road, East.—No. 811 (S), u.t. 34 yrs., g.r. 4*l.*, w.r. 62*l.* 8s. 420
Poplar.—122 and 124, East India Dock-rd., y.r. 100*l.*; also i.g.r. 2*l.*, u.t. 18½ yrs., g.r. 8*l.* 10s. 750
By ROBERT REID.
Regent-street.—No. 224 (S), area 823 ft., u.t. 17½ yrs., g.r. 67*l.*, y.r. 500*l.* 7,100
No. 225 (S), area 865 ft., u.t. 17½ yrs., g.r. 44*l.* 2s., y.r. 450*l.* 4,300
Chelsea.—1 to 18, Paradise-walk, area 11,460 ft., f., w.r. 366*l.* 12s.; also f.g.r. 5*l.*, reversion in 14½ yrs. 4,375
Tottenham.—6, Whitfield-st. (S), c., y.r. 37*l.* 10s. 80

Contractions used in these lists.—F.g.r. for freehold ground-rent; l.g.r. for leasehold ground-rent; i.g.r. for improved ground-rent; g.r. for ground-rent; r. for rent; f. for freehold; c. for copyhold; l. for leasehold; p. for possession; e.r. for estimated rental; w.r. for weekly rental; q.r. for quarterly rental; y.r. for yearly rental; u.t. for unexpired term; p.a. for per annum; yrs. for years; la. for lane; st. for street; rd. for road; sq. for square; pl. for place; ter. for terrace; cres. for crescent av. for avenue; gdns. for gardens; yd. for yard; gr. for grove; b.h. for beer-house; p.h. for public-house; o. for offices; s. for shops.

PRICES CURRENT OF MATERIALS.

*** Our aim in this list is to give, as far as possible, the *average* prices of materials, not necessarily the lowest. Quality and quantity obviously affect prices—a fact which should be remembered by those who make use of this information.

BRICKS, &c.

	£ s. d.			
Hard Stocks	1 15 0	per 1,000 alongside, in river.		
Rough Stocks and Grizzles.....	1 12 0	,,	,,	,,
Facing Stocks....	2 12 0	,,	,,	,,
Shippers	2 5 0	,,	,,	,,
Flettons	1 7 6	,,	at railway	depôt
Red Wire Cuts ..	1 12 0	,,	,,	,,
Best Fareham Red	3 12 0	,,	,,	,,
Best Red Pressed Ruabon Facing	5 0 0	,,	,,	,,
Best Blue Pressed Staffordshire ..	4 5 0	,,	,,	,,
Do. Bullnose	4 11 0	,,	,,	,,
Best Stourbridge Fire Bricks	4 8 0	,,	,,	,,
GLAZED BRICKS.				
Best White and Ivory Glazed Stretchers.....	13 0 0	,,	,,	,,
Headers	12 0 0	,,	,,	,,
Quoins, Bullnose, and Flats.....	17 0 0	,,	,,	,,
Double Stretchers	19 0 0	,,	,,	,,
Double Headers..	16 0 0	,,	,,	,,
One Side and two Ends.....	19 0 0	,,	,,	,,
Two Sides and one End	20 0 0	,,	,,	,,
Splays, Chamfered, Squints.....	20 0 0	,,	,,	,,
Best Dipped Salt Glazed Stretchers and Headers	12 0 0	,,	,,	,,
Quoins, Bullnose, and Flats.....	14 0 0	,,	,,	,,
Double Stretchers	15 0 0	,,	,,	,,
Double Headers..	14 0 0	,,	,,	,,
One Side and two Ends.....	15 0 0	,,	,,	,,
Two Sides and one End	15 0 0	,,	,,	,,
Splays Chamfered, Squints.....	14 0 0	,,	,,	,,
Second Quality White and Dipped Salt Glazed	2 0 0	,,	less than best.	
Thames and Pit Sand	6	9	per yard, delivered.	
Thames Ballast	6	0	,,	,,
Best Portland Cement	30	0	per ton, delivered.	
Best Ground Blue Lias Lime..	20	6	,,	,,

NOTE.—The cement or lime is exclusive of the ordinary charge for sacks.

Grey Stone Lime ..... 10s 6d. per yard, delivered.
Stourbridge Fire-clay in sacks 27s. 6d. per ton at rly. dpt.

STONE.

	s. d.		
Ancaster in blocks	1 11	per ft. cube, deld	rly. depôt.
Bath ,, ...	1 7	,,	,,
Farleigh Down Bath ..	1 8	,,	,,
Beer in blocks	1 6	,,	,,
Grinshill ,, ...	1 10	,,	,,
Brown Portland in blocks	2 2	,,	,,
Darley Dale in blocks..	2 4	,,	,,
Red Corsehill ,,	2 5	,,	,,
Closeburn Red Freestone	2 0	,,	,,
Red Mansfield ,,	2 4	,,	,,

YORK STONE—*Robin Hood Quality.*

	s. d.		
Scappled random blocks	2 10	per ft. cube, deld.	rly. depôt.
6 in. sawn two sides landings to sizes (under 40 ft. super.)	2 3	per foot super.	,,
6 in. Rubbed two sides Ditto, Ditto	2 6	,,	,,
3 in. Sawn two sides slabs (random sizes)..	0 11½	,,	,,
2 in. to 2½ in. Sawn one side slabs (random sizes)	0 7½	,,	,,
1½ in. to 2 in. ditto, ditto	0 6		,,

BEST HARL YORK—

Scappled random blocks	3 0	per ft. cube	,,
6 in. sawn two sides, landings to sizes (under 40 ft. sup.)	2 8	per ft. super.	,,
6 in. Rubbed two sides Ditto	—	,,	,,
3 in. sawn two sides slabs (random sizes)	1 2	,,	,,
2 in. self-faced random flags.....	0 5	,,	,,
Hopton Wood (Hard Bed) in blocks	2 3	per ft. cube.	
,, ,, ,, 6 in. sawn both sides landings	2 7	per ft. super. deld. rly. depôt	
,, ,, ,, 3 in. do.	1 2½	,,	,,

SLATES.

in. in.	£ s. d.		
20×10 best blue Bangor..	13 2 6	per 1000 o. 1200 at ry. dep.	
20×12 ,, ,, ,, ..	13 17 6	,,	,,
20×10 best seconds ,,	12 15 0	,,	,,
20×12 ,, ,, ,,	13 10 0	,,	,,
16×8 best ,,	7 0 0	,,	,,
20×10 best blue Portmadoc	12 5 0	,,	,,
16×8 best blue Portmadoc	6 5 0	,,	,,
20×10 best Eureka unfading green....	15 2 6	,,	,,
20×12 ,, ,,	17 2 6	,,	,,
18×10 ,, ,,	12 10 0	,,	,,
16×8 ,, ,,	10 5 0	,,	,,
20×10 permanent green	11 0 0	,,	,,
18×10 ,, ,,	9 5 0	,,	,,
16×8 ,,	6 10 0	,,	,,

PRICES CURRENT (*Continued*).

TILES.

	s.	d.			
Best plain red roofing tiles	42	0	per 1,000, at rly. depôt.		
Hip and valley tiles	3	7	per doz.	,,	,,
Best Broseley tiles	50	0	per 1,000	,,	,,
Do. Ornamental Tiles	52	6	,,	,,	,,
Hip and valley tiles	4	0	per doz.	,,	,,
Best Ruabon Red, brown or brindled Do. (Edwards)	57	6	per 1,000	,,	,,
Do. ornamental Do.	60	0	,,	,,	,,
Hip tiles	4	0	per doz.	,,	,,
Valley tiles	3	0	,,	,,	,,
Best Red or Mottled Staffordshire Do. (Peakes)	51	9	per 1,000	,,	,,
Do. Ornamental Do.	54	6	,,	,,	,,
Hip tiles	4	1	per doz.	,,	,,
Valley tiles	3	8	,,	,,	,,
Best "Rosemary" brand plain tiles	48	0	per 1,000	,,	,,
Do. Ornamental Do.	50	0	,,	,,	,,
Hip tiles	4	0	per doz.	,,	,,
Valley tiles	3	8	,,	,,	,,

WOOD.

	At per standard.					
	£	s.	d.	£	s.	d.
Deals: best 3 in. by 11 in. and 4 in. by 9 in. and 11 in.	15	10	0	16	10	0
Deals: best 3 by 9	14	10	0	15	10	0
Battens: best 2½ in. by 7 in. and 8 in., and 3 in. by 7 in. and 8 in.	11	10	0	12	10	0
Battens: best 2½ by 6 and 3 by 6	0	10	0	less than 7 in. and 8 in.		
Deals: seconds	1	0	0	less than best		
Battens: seconds	0	10	0	,,	,,	,,
2 in. by 4 in. and 2 in. by 6 in.	9	0	0	9	10	0
2 in. by 4½ in. and 2 in. by 6 in.	8	10	0	9	10	0
Foreign Sawn Boards— 1 in. and 1¼ in. by 7 in.	0	10	0	more than battens.		
¾ in.	1	0	0	,,		
Fir timber: Best middling Danzig or Memel (average specification	At per load of 50 ft.					
	4	10	0	5	0	0
Seconds	4	5	0	4	10	0
Small timber (8 in. to 10 in.)	3	12	6	3	15	0
Small timber (6 in. to 8 in.)	3	0	0	3	10	0
Swedish balks	2	15	0	3	0	0
Pitch-pine timber (30 ft. average)	3	5	0	3	15	0
JOINERS WOOD.	At per standard.					
White Sea: First yellow deals, 3 in. by 11 in.	23	0	0	24	0	0
3 in. by 9 in.	21	0	0	22	10	0
Battens, 2½ in. and 3 in. by 7 in.	17	0	0	18	10	0
Second yellow deals, 3 in. by 11 in.	18	10	0	20	0	0
,, ,, 3 in. by 9 in.	17	10	0	19	0	0
Battens, 2½ in. and 3 in. by 7 in.	13	10	0	14	10	0
Third yellow deals, 3 in. by 11 in. and 9 in.	15	10	0	16	10	0
Battens, 2½ in. and 3 in. by 7 in.	11	10	0	12	10	0
Petersburg: first yellow deals, 3 in. by 11 in.	21	0	0	22	10	0
Do. 3 in. by 9 in.	18	0	0	19	10	0
Battens	13	10	0	15	0	0
Second yellow deals, 3 in. by 11 in.	16	0	0	17	0	0
Do. 3 in. by 9 in.	14	10	0	16	0	0
Battens	11	0	0	12	10	0
Third yellow deals, 3 in. by 11 in.	13	10	0	14	0	0
Do. 3 in. by 9 in.	13	0	0	14	0	0
Battens	10	0	0	11	0	0
White Sea and Petersburg:—						
First white deals, 3 in. by 11 in.	14	10	0	15	10	0
,, ,, 3 in. by 9 in.	13	10	0	14	10	0
Battens	11	0	0	12	0	0
Second white deals 3 in. by 11 in.	13	10	0	14	10	0
,, ,, ,, 3 in. by 9 in.	12	10	0	13	10	0
,, ,, ,, battens	9	10	0	10	10	0
Pitch-pine: deals	16	0	0	18	0	0
Under 2 in. thick extra	0	10	0	1	0	0
Yellow Pine—First, regular sizes	33	0	0	upwards.		
Oddments	22	0	0	24	0	0
Seconds, regular sizes	24	10	0	26	10	0
Yellow Pine Oddments	20	0	0	22	0	0
Kauri Pine—Planks, per ft. cube	0	3	6	0	4	6
Danzig and Stettin Oak Logs— Large, per ft. cube	0	2	6	0	3	6
Small ,, ,,	0	2	3	0	2	6
Wainscot Oak Logs, per ft. cube	0	5	0	0	5	6
Dry Wainscot Oak, per ft. sup. as inch	0	0	7	0	0	8
¾ in. do. do.	0	0	6½	-	-	-
Dry Mahogany— Honduras, Tabasco, per ft. sup. as inch	0	0	9	0	0	11
Selected, Figury, per ft. sup. as inch	0	1	6	0	2	0
Dry Walnut, American, per ft. sup. as inch	0	0	10	0	1	0
Teak, per load	17	0	0	21	0	0
American Whitewood Planks— Per ft. cube	0	4	0	-	-	-
Prepared Flooring—	Per square.					
1 in. by 7 in. yellow, planed and shot	0	13	6	0	17	6
1 in. by 7 in. yellow, planed and matched	0	14	0	0	18	0
1¼ in. by 7 in. yellow, planed and matched	0	16	0	1	1	6
1 in. by 7 in. white, planed and shot	0	11	6	0	13	6
1 in. by 7 in. white, planed and matched	0	12	0	0	14	0
1¼ in. by 7 in. white, planed and matched	0	14	6	0	16	6
¾ in. by 7 inch yellow matched and beaded or V-jointed boards	0	11	0	0	13	6
1 in. by 7 in. do. do. do.	0	14	0	0	18	0
¾ in. by 7 in. white do. do.	0	10	0	0	11	6
1 in. by 7 in. do. do. do.	0	11	6	0	13	6

6-in. at 6d. to 9d. per square less than 7-in.

PRICES CURRENT (*Continued*).

JOISTS, GIRDERS, &c.

	In London, or delivered Railway Vans, per ton.					
	£	s.	d.	£	s.	d.
Rolled Steel Joists, ordinary sections	6	5	0	7	5	0
Compound Girders ,, ,,	8	2	6	9	5	0
Angles, Tees and Channels, ordinary sections	7	17	6	8	17	6
Flitch Plates	8	5	0	8	15	0
Cast Iron Columns and Stanchions, including ordinary patterns	7	2	6	8	5	6

METALS.

	Per ton, in London.					
	£	s.	d.	£	s.	d.
IRON— Common Bars	7	15	0	8	5	0
Staffordshire Crown Bars, good merchant quality	8	5	0	8	15	
Staffordshire "Marked Bars"	10	10	0	-	-	
Mild Steel Bars	9	0	0	9	10	0
Hoop Iron, basis price	9	5	0	9	10	0
,, ,, galvanised	16	0	0	.	.	.
(* And upwards, according to size and gauge.)						
Sheet Iron, Black.— Ordinary sizes to 20 g.	10	0	0	-	-	-
,, ,, to 24 g.	11	0	0	-	-	-
,, ,, to 26 g.	12	10	0	-	-	-
Sheet Iron, Galvanised, flat, ordinary quality— Ordinary sizes, 6 ft. by 2 ft. to 3 ft. to 20 g.	12	15	0	-	-	-
,, ,, 22 g. and 24 g.	13	5	0	-	-	-
,, ,, 26 g.	14	5	0	-	-	-
Sheet Iron, Galvanised, flat, best quality:— Ordinary sizes to 20 g.	16	0	0	-	-	-
,, ,, 22 g. and 24 g.	16	10	0	-	-	-
,, ,, 26 g.	18	0	0	-	-	-
Galvanised Corrugated Sheets:— Ordinary sizes, 6 ft. to 8 ft. 20 g.	12	15	0	-	-	-
,, ,, 22 g. and 24 g.	13	5	0	-	-	-
,, ,, 26 g.	14	5	0	-	-	-
Best Soft Steel Sheets, 6 ft. by 2 ft. to 3 ft. by 20 g. and thicker	12	0	0	-	-	-
,, ,, 22 g. and 24 g.	13	0	0	-	-	-
,, ,, 26 g.	14	5	0	-	-	-
Cut nails, 3 in. to 6 in. (Under 3 in. usual trade extras.)	9	5	0	9	15	0

LEAD, &c.

	Per ton, in London.					
	£	s.	d.	£	s.	d.
LEAD—Sheet, English, 3 lbs. & up.	14	15	0	-	-	-
Pipe in coils	15	5	0	-	-	-
Soil pipe	17	15	0	-	-	-
Compo Pipe	17	15	0	-	-	-
ZINC—Sheet— Vieille Montagne ton	28	5	0	-	-	-
Silesian	28	0	0	-	-	-
COPPER— Strong Sheet per lb.	0	0	10½	-	-	-
Thin ,,	0	0	11½	-	-	-
Copper nails ,,	0	0	11	-	-	-
BRASS— Strong Sheet ,,	0	0	10	-	-	-
Thin ,, ,,	0	0	11	-	-	-
TIN—English Ingots ,,	0	1	5	-	-	-
SOLDER—Plumbers' ,,	0	0	6½	-	-	-
Tinmen's ,,	0	0	8½	-	-	-
Blowpipe ,,	0	0	9½	-	-	-

ENGLISH SHEET GLASS IN CRATES.

15 oz. thirds	2½d. per ft. delivered.
,, fourths	1¾d. ,, ,,
21 oz. thirds	3¼d. ,, ,,
,, fourths	2½d. ,, ,,
26 oz. thirds	4d. ,, ,,
,, fourths	3¼d. ,, ,,
32 oz. thirds	5d. ,, ,,
,, fourths	4¼d. ,, ,,
Fluted sheet, 15 oz.	3d. ,, ,,
,, 21 oz.	4d. ,, ,,
⅛ Hartley's Rolled Plate	1¾d. ,, ,,
⅛ ,, ,, ,,	2d. ,, ,,
¼ ,, ,, ,,	2¼d. ,, ,,

OILS, &c.

		£	s.	d.
Raw Linseed Oil in pipes or barrels	per gallon	0	2	3
,, ,, ,, in drums	,,	0	2	7
Boiled ,, ,, in pipes or barrels	,,	0	2	5
,, ,, ,, in drums	,,	0	2	9
Turpentine, in barrels	,,	0	3	8
,, in drums	,,	0	3	10
Genuine Ground English White Lead	per ton	21	10	0
Red Lead, Dry	,,	20	0	0
Best Linseed Oil Putty	per cwt.	0	8	0
Stockholm Tar	per barrel	1	12	0

VARNISHES, &c.

	Per gallon.		
	£	s.	d.
Fine Pale Oak Varnish	0	8	0
Pale Copal Oak	0	10	6
Superfine Pale Elastic Oak	0	12	6
Fine Extra Hard Church Oak	0	10	0
Superfine Hard-drying Oak, for Seats of Churches	0	14	0
Fine Elastic Carriage	0	12	6
Superfine Pale Elastic Carriage	0	16	0
Fine Pale Maple	0	16	0
Finest Pale Durable Copal	0	18	0
Extra Pale French Oil	1	1	0
Eggshell Flatting Varnish	0	18	0
White Copal Enamel	1	4	0
Extra Pale Paper	0	12	0
Best Japan Gold Size	0	10	6
Best Black Japan	0	16	0
Oak and Mahogany Stain	0	9	0
Brunswick Black	0	8	6
Berlin Black	0	16	0
Knotting	0	10	0
French and Brush Polish	0	10	0

TO CORRESPONDENTS.

J. B.—W. B.—M. & C.—W. & N. (Amounts should have been stated.)

NOTE.—The responsibility of signed articles, letters, and papers read at meetings rests, of course, with the authors.

We cannot undertake to return rejected communications.

Letters or communications (beyond mere news items) which have been duplicated for other journals are NOT DESIRED.

All communications must be authenticated by the name and address of the sender, whether for publication or not. No notice can be taken of anonymous communications.

We are compelled to decline pointing out books and giving addresses.

Any commission to a contributor to write an article is given subject to the approval of the article, when written, by the Editor, who retains the right to reject it if unsatisfactory. The receipt by the author of a proof of an article in type does not necessarily imply its acceptance.

All communications regarding literary and artistic matters should be addressed to THE EDITOR; those relating to advertisements and other exclusively business matters should be addressed to THE PUBLISHER, and *not* to the Editor.

TENDERS.

[Communications for insertion under this heading should be addressed to "The Editor," and must reach us *not later than 10 a.m. on Thursdays*. N.B.—We cannot publish Tenders unless authenticated either by the architect or the building-owner; and we cannot publish announcements of Tenders accepted unless the amount of the Tender is given, nor any list in which the lowest Tender is under 100*l.*, unless in some exceptional cases and for special reasons.]

* Denotes *accepted*. † Denotes *provisionally accepted*.

ABERTILLERY (Mon.)—For the erection of school buildings, for the Aberystruth School Board. Mr. R. L. Roberts, architect, Abercarn. Quantities by architect:—

D. W. Davies	£13,200	A. P. Williams	£10,509
D. Davies	12,865	E. C. Jordan	10,370
Latty & Co., Ltd.	12,836	Richards & Co., Ltd.	10,100
Bagley & Co.	12,418	D. J. Davies	10,040
Smith Bros.	11,860	J. Jenkins, Newport*	9,925
J. Newcombe	11,642	J. Morgan	9,900
D. Lewis	10,650		

ACTON.—For the erection of the Central Schools, for the School Board for Acton. Messrs. Edward Monson & Sons, Architects to the Board, Acton Vale, W., and 22, Buckingham-street, Adelphi, W.C. Quantities by Mr. F. T. W. Miller, Dartmouth-street, Queen Anne's-gate, S.W.:—

Barker & Co.	£31,500	Braid, Pater, & Co.	£27,000
B. E. Nightingale	29,300	Walter Wallis	26,999
Hunt & Son	28,967	Dearing & Son	26,973
Godson & Sons	28,846	H. Lovatt	26,750
Wall & Co.	28,647	Gough & Co.	26,734
Kellett & Sons	28,100	W. Blackburn	26,650
Patman & Fotheringham	28,000	W. J. Renshaw	26,296
Lole & Lightfoot	27,957	Galbraith Bros.	26,295
Dorey & Co.	27,300	Hadley & Sons	26,000
Architect's estimate	27,150	Willcock & Co., Wolverhampton‡	25,685

‡ Accepted subject to the approval of the Board of Education.

ASKERN (Yorks).—For the erection of stabling, &c., Railway Hotel, for Messrs. Carter's Knottingley Brewery Co. Messrs. Garside & Pennington, architects, Pontefract. Quantities by architects:—

Perry & Sons	£384 18 9	Thompson & Co., Howden, near Goole*	£337 10 0
Bryant & Sons	368 0 0	Thackray Bros.	336 0 0
Walker & Sons	345 0 0	Rob. Stewart	329 2 5

BRISTOL. — For the enlargement of Chester Park schools, Fishponds, for the School Board. Mr. W. V Gough, architect, 24, Bridge-street, Bristol:—

G. Daltry	£4,991	A. J. Beaven	£3,490
E. Walters	4,060	E. Clarke	3,440
S. Williams	3,905	E. Love	3,419
H. A. Forse	3,901	C. A. Hayes	3,387
J. E. B. James	3,760	G. Humphreys	3,259
Wilkins & Sons	3,649	J. Browning*	3,200

[All of Bristol.]

Plumbing.

A. W. Hawley	£368	A. E. Wilkins	318
Slade & Bridgman	365	G. F. Tuckley	309
A. S. Scull	335 10	Wilkins & Son	305
S. H. Pavey	319	A. & J. Tutche*	302 10
J. E. B. James	319		

CARDIFF.—For erection of new shop premises in Cowbridge-road, Canton, Cardiff, for Mr. Thomas Edwards. Messrs. Veall & Sant, architects:—

Couzens & Co.	£1,300	J. Haines	£1,250
F. Small	1,295	W. T. Morgan	1,235
J. Allan	1,289	Blacker Bros.	1,230
Melnuish Bros.	1,279	Symonds & Co.	1,200
Tucker Bros.	1,276	A. W. Cadwallader	1,170
Shepton & Son	1,275	Knox & Wells*	1,123

[All of Cardiff.]

CARDIFF.—For additions to St. Margaret's House of Mercy, Roath, Cardiff, for the Rev. Mother Superior, St. Margaret's East Grinstead. Messrs. Veall & Sant, architects:—

Shepton & Son* £725

[No competition.]

[*See also page* 525.

CONTRACTS AND PUBLIC APPOINTMENTS.

(For some Contracts, &c., still open, but not included in this List, see previous issues.)

CONTRACTS.

Nature of Work or Materials.	By whom Advertised.	Forms of Tender, &c., supplied by	Tenders to be delivered
*Additions, &c., to Hospital	Warwick Joint Hospital Board	F. P. Trepess, Architect, 1, Church-street, Warwick	May 18
Library, Boston-road, Brentford	Mr. Andrew Carnegie	N. Parr, Surveyor, Clifden House, Boston-road, Brentford	May 19
Sewerage Works, Wrenthorpe	Wakefield R.D.C.	F. Massie, Civil Engineer, Tetley House, Kirkgate, Wakefield	do.
Covered Reservoir, Chadwick	East Worcestershire Water Works Co.	E. B. Marten, Civil Engineer, Stourbridge	do.
Kerbing, &c., at Workhouse	Belfast Guardians	J. C. Nelson, Workhouse, Belfast	do.
Surveyors' Materials	Maldon (Essex) Corporation	T. R. Swales, Borough Surveyor, Malden	do.
Farmhouse, Capultral, N.B.	.....	Daigleish & Bell, Rutland-square, Edinburgh	do.
Additions to School, Dunmurry (Ireland)	.....	Young & MacKenzie, Architects, Belfast	do.
Additions to Workhouse, Atherstone	.....	J. W. Godderidge, Architect, 4, Bolebridge-street, Tamworth	do.
Ten Houses, Bradford-road, Keighley	.....	B. Hopkinson & Co., Architects, North-street, Keighley	do.
Additions to Church House Hotel, Stoke Gabriel, Totnes	.....	W. E. Tollit, Architect, Totnes	May 20
House, Castletownbere, Ireland	.....	M. A. Hennessey, Architect, 74, South Mall, Cork	do.
Hotel, Beast Market, Huddersfield	Bentleys Yorkshire Breweries, Ltd.	J. Berry, Architect, Huddersfield	do.
Combing Works, Dalton-lane, Keighley	.....	Moore & Crabtree, Architects, Keighley	do.
Works at Retort House at Gas Works	Rochdale Corporation	J. Leach, Town Hall, Rochdale	do.
Widening Churel. Bank	Bradford Corporation	J. H. Cox, Civil Engineer, Town Hall, Bradford	do.
Engine House, &c., Seacombe Ferry, Cheshire	Wallasey U.D.C.	Wood & Fowler, Civil Engineers, 3, Cork-street, Liverpool	do.
Alterations to Business Premises, The Parade	Mr. Price	A. C. Turley, Civil Engineer, Canterbury	do.
Sewerage Purification Works	Cowdenbeath (N.B.) Town Council	Buchanan & Bennett, Civil Engineers, 12, Hill-street, Edinburgh	do.
Chapel, North Somercotes (Lincs)	The Building Committee	W. H. Dinsley, Architect, Chorley, Lancs	do.
Bridge, near Redditch	King's Norton U.D.C.	A. W. Cross, C. E., 23, Valentine-road, King's Heath, Birmingham	do.
Alterations to Chapel, King-street, Blaenavon	The Trustees	G. C. Hillard, Architect, Market Chambers, Abertillery	do.
*Vertical Asphalte Damp Course, &c.	St. Leonard's Shoreditch Guardians	F. G. Smith, Parliament Mansions, Victoria-street, S.W.	do.
*Making-up, &c., Woolwelgh-street	Borough of Fulham	Borough Surveyor, Town Hall, Fulham, S.W.	do.
*Painting, Flooring, &c., Engine, &c., Rooms at Work'se	Fulham Guardians	Clerk to Guardians, 75, Fulham Palace-road, W.	do.
Seven Houses, Carr House Gate, Wyke, Yorks	.....	R. Berry, Architect, Halifax	May 21
House and Shop, Caerphilly	.....	R. Williams, Taff's Well, Caerphilly	do.
Cottages, &c., Elgin, N.B.	.....	Reid & Willet, Architects, Elgin	do.
Bridge Works, &c., Scotswood-road, Newcastle	.....	City Engineer, Town Hall, Newcastle-on-Tyne	do.
Road Works, Bowling-road	Ware (Herts) U.D.C.	J. E. Smales, Surveyor, New-road, Ware	do.
Schools, &c., Corporation-road	The School Board	G. G. Hoskins, Architect, Darlington	do.
Lavatories, Staircases, &c., at Workhouse, Bangor-road	Conway Guardians	T. B. Farringdon, Architect, Trinity-square, Llandudno	do.
Manufactory, Bramley, Leeds	.....	J. Kirk & Sons, Architects, Dewsbury	May 22
Shop & House, &c., South-st., Oakenshaw, nr. Bradford	.....	M. Hall, Architect, 1, Harrison-road, Halifax	do
Farmhouse, Penymynydd (Wales)	Mr. H. Howells	Mr. Howells, Penymynydd, Wales	do.
Superstructure of Buildings, Victoria-square	Hull Corporation	J. H. Hirst, City Architect, Town Hall, Hull	do.
Chapel, Walney Island, Barrow-in-Furness	The Wesleyan Trustees	J. F. Curwen, Architect, 26, Highgate, Kendal	do.
*Redecorations at Schools, Upton Park	St. George-in-the-East Guardians	R. J. Tasker, 38, John-street, Bedford-row, W.C.	do.
*Sundry Repairs at Infirmary, Old Gravel-lane	do.	do.	do.
*Sewers, Drainage, Road Making Works, Fencing, &c.	.....	W. B. Hill, 81, Above Bar, Southampton	May 23
Hospital, Dufftown (N.B.)	.....	C. C. Doig, Architect, Elgin	do.
Shop and House, High-street, Great Horton, Bradford	.....	S. Spencer, Architect, Great Horton, Bradford	do.
Additions to Farm, Bridgefoot, near Aberdeen	.....	J. Craigen, 193, Union-street, Aberdeen	do.
Additions to Chapel, Pontardawe	.....	C. S. Thomas, Architect, 63, Wind-street, Swansea	do.
Houses, &c., Hopkinstown, Pontypridd	Mr. Rees Phillipps	Lewis & Morgan, Architects, Pontypridd	do.
Sewers, &c.	Surbiton U.D.C.	J. Bell, Ewell-road, Surbiton	do.
Sewers, &c., Stanley	Durham U.D.C.	J. Routledge, Surveyor, Stanley, Durham	do.
Forty-two Houses, Caerphilly (Wales)	Victoria Building Club	G. L. Watkins, Architect, Station-terrace, Caerphilly	May 27
Setts (300 tons)	Belfast Harbour Commissioners	G. F. L. Giles, Engineeer, Harbour Offices, Belfast	do.
Villa, Bedwas, Wales	Mr. G. G. Lewis	G. L. Watkins, Architect, Station-terrace, Caerphilly	do.
Road Works, &c., Church-road	Altofts (near Wakefield) U.D.C.	J. C. Coates, Surveyor, Council Offices, Altofts	do.
*710 ft. 15 in. &c. Stonepipe	Metropolitan Borough of Islington	Borough Engineer, Town Hall, Upper-street, N.	do.
*New Station at Portland	Great Western Railway	The Engineer, Paddington Station, W.	May 26
Waterworks, Kilternan (Ireland)	Rathdown R.D.C.	P. Cunniam, Council Offices, Loughinstown, Ireland	do.
*New School and Caretaker's House, Tilbury Docks	Chadwell St. Mary School Board	J. Thompson, 12, St. Vincent's-road, Southend-on-Sea	do.
*Newspaper Repository at Hendon	H.M. Works	J. B. Westcott, H.M. Office of Works, Storey's Gate, S.W.	do.
*Erection of Post Office, Knightsbridge	Commissioners of H.M. Works, &c.	H.M. Office of Works, Storey's Gate, S.W.	do.
*Making-up Streets	West Ham Borough Council	Borough Engineer, Town Hall, West Ham, E.	do.
Road Metal, &c.	Chatham Corporation	C. Day, Borough Surveyor, Town Hall, Chatham	May 28
Street Works, Maypole Estate	Dartford U.D.C.	W. Harton, Civil Engineer, 8, Hythe-street, Dartford	do.
*Iron Railings, &c.	St. Olave's Union	Newman & Newman, 31, Tooley-street, S.E.	do.
*Sorting Office at Finchley	H.M. Works	The Secretary, H.M. Office of Works, Storey's Gate, S.W.	June 2
*Sorting Office at Hanwell	do.	do.	do.
*Sewerage and Sewage Disposal Works, Formby	West Lancashire R.D.C.	C. A. Atkinson, Engineer, 11, Tithebarn-street, Liverpool	do.
*Workmen's Dwellings	Hornsey U.D.C.	Council's Engineer, 99, Southwood-lane, Highgate, N.	June 8
*Stoneware Pipe at Iron Pipe Sewers, &c.	Chelmsford Town Council	Council's Surveyor, 16, London-road, Chelmsford	June 10
*New Car Sheds at Clapham, &c.	London County Council	Architect's Department, 19, Charing Cross-road, W.C.	June 23
*Widening and Enlargement of Victoria Station	L. B. & S. C. Railway Co.	The Engineer, London Bridge Station, S.E.	June 24
*Small House, near Faygate, Surrey	.....	K. D. S. Robinson, 7, Carteret-street, Westminster, S.W.	No date.
*New Church, Chandler's Ford, Hants	The Committee	Northcroft, Son, & Nicholson, 9, Regent-street, W.	do.
Rebuilding Residence, Southtawton, Devon	Mr. W. Lethbridge	J. Derman, Architect, 1, Bedford-circus, Exeter	do.
House, Upper Wortley-road, Leeds	The Trustees	J. E. Gaunt, The Cottage, Upper Wortley	do.
Twelve Houses, Oxenshaw Colliery, Wellington, Durham	Messrs. Strakers & Lowe	The Engineer, Braucepeth Colliery, Willington, Co. Durham	do.
Fourteen Houses, Ruthin-road, Wrexham	Mr. R. H. Williams	F. J. Whittingham, Architect, Bank-street Chambers, Wrexham	do.
Congregational Chapel, Ilkeston	.....	H. T. Sudbury, Architect, 18, Market-place, Ilkeston	do.
Business Premises, Monk-street, Abergavenny	.....	E. A. Johnson, Architect, Abergavenny	do.
Workshop, Ashton-under-Lyne	National Gas Engine Co., Ltd.	A. Turner, Architect, 26, Clegg-street, Oldham	do.
House, Malling Park, Hampton-on-Thames	.....	F. G. Hughes, Architect, The Estate Office, Hampton	do.
Ten Cottages, Cross Hands, Llanelly	.....	Secretary, Cross Hands Colliery Co., Stafford Chambers, Llanelly	do.
Pulling Down, &c., St. John's, Failsworth (Lancs)	.....	C. T. Taylor, 10, Clegg-street, Oldham	do.
Chapel, Llandegla, Wales	.....	W. Moss, Architect, 2, Temple-row, Wrexham	do.
Slating, 1,300 sq. yds., Castleford, Yorks	.....	A. Hartley, Architect, County Chambers, Castleford	do.
Paving Works, Smithfield, Wrexham	.....	A. F. Broomhead, 4, Argyle-street, Wrexham	do.
*Shops and Out Premises	Burton-on-Trent Co.-op. Soc., Ltd.	R. Stevenson, Architect, Burton-on-Trent	do.

PUBLIC APPOINTMENTS.

Nature of Appointment.	By whom Advertised.	Salary.	Application to be in
*Clerk of Works	Hampton U.D.C.	3*l.* 3s. per week	May 22
*Surveyor	Walton-on-Thames U.D.C.	250*l.*	May 23
*Clerk of Works	Tamworth Union	Not stated	May 26

TENDERS (*Continued*):—

CLAREMORRIS (Ireland).—For the erection of a fever hospital, for the Guardians. Mr. John Ritchie, C.E., Ballinrobe:—

Egan & Son	£1,800	T. Moloney, Claremorris*	£799
Frank Moore	1,095	P. McHugh	780
T. P. Donnellon	900		

DURHAM.—For the erection of a house, Esh Winning. Mr. H. T. Gradon, architect, 22, Market-place, Durham:—

G. T. Manners	£1,167 0 0	J. G. Bradley	£1,014 0 0
D. D. Hall	1,056 0 0	Jas. Robson, Waterhouses*	940 0 0
Draper & Son	1,043 0 0		
G. C. Young‡	1,035 17 6		

‡ Received too late for consideration.

EASTBOURNE.—For the erection of a fire station, Grove-road, for the Corporation. Mr. P. A. Robson, architect, 9, Bridge-street, Westminster, S.W.:—

M. Hookham	£5,059 0	F. G. Minter	£4,657 0
Martin Wells & Co.	4,917 15	J. Martin	4,495 0
Cornwell & Son	4,684 5	J. Longley	4,489 0
		W. & E. Noakes	4,150 0

HEADINGLEY.—For the enlargement of Wesleyan Theological Institution, Headingley, Leeds. Messrs. Danby & Simpson, architects, Park-row, Leeds:—

Masonry and Joinery.—W. Airey, Leeds*	£2,630 0
Plumbing.—Slater & Son, Leeds*	164 8
Plastering.—J. Phillips, Hunslet*	145 0
Painting.—Carter & Frankland, Leeds*	87 10
Slating.—Atkinson & Son, Leeds*	221 5
Heating.—Holmes & Co., Leeds*	240 0

KNARESBOROUGH.—For the erection of Wesleyan chapel, Scriven, Knaesrborough. Messrs. Danby & Simpson, architects, Park-row, Leeds:—

Masonry.—Ridsdale & Son, Ribston Wetherby*	£669 15 6
Joinery.—Kitching & Son, Knaresborough*	325 0 0
Plumbing.—A. Ellenger, Harrogate*	83 0 0
Slating.—J. & W. Baynes, Harrogate*	57 0 0
Plastering.—M. M. Bartholomew, Knaresborough*	42 10 0
Painting.—Morley & Son, Knaresborough*	27 9 0

LARNE (Ireland).—For the erection of a sessions house for Antrim County Council. Mr. Samuel Robinson, Surveyor, Barnhill, Larne:—

Jas. Ferris	£1,465	D. McIlgorm, Larne*	£1,445

LONDON.—For the erection of warehouse in Vera-street, Clapham, S.W., for Mr. E. W. Bonekamper. Mr. Harry J. Capell, architect, 20, Lynette-avenue, Clapham Common, S.W.:—

G. Garner	£3,181 12	Garrett & Son	£2,293 0
H. T. Bishop	2,872 0	Somerford & Son, Clapham*	1,988 0
Turtle & Appleton	2,320 0		

LONDON.—For the docking and repair of the s.s. *Burns*, for the London County Council:—

Reeder & Co.	£1,878 8 9
The Thames Ironworks, Shipbuilding, &c., Co., Ltd.	1,289 0 0
Brown's Dry Dock and Engineering Co., Ltd.	1,043 10 0
Fletcher, Son, & Fearnall, Ltd.	998 0 0
Mills & Knight*	779 4 6

LONDON.—For the erection of public baths and washhouses, Old Kent-road, for the Borough of Camberwell. Mr. E. Harding Payne, architect, 11, John-street, Bedford-row. Quantities by Mr. R. C. Gleed:—

	Baths and Washhouses.	Extra for Portland Stone.
W. Lawrence & Son	£48,300	£2,800
Balaam Brothers	45,000	1,100
B. Nightingale	44,500	2,200
Shelbourne & Co.	42,910	1,723
Godson & Sons	42,354	736
W. J. Maddison	42,329	1,256
Shillitoe & Son	42,270	970
E. Lawrence & Son	41,975	998
Battley, Sons, & Holness	41,757	1,119
C. Ansell	41,502	999
Jones & Son	41,035	—
H. L. Holloway	41,000	955
Holliday & Greenwood	40,644	1,031
Pattinson & Sons	40,133	1,068
Greenwood, Ltd.	40,086	1,000
W. Wallis	39,999	1,500
King & Son	39,792	1,266
Galbraith Brothers	39,675	1,426
Kilby & Gayford	39,633	1,220
A. N. Coles, Plymouth†	37,433	1,630

LYNN.—For additions to the Parish Church, Clenchwarton. Mr. Herbert Tilson, architect, Railway-road, Lynn:—

W. H. Brown	£149 0	H. W. Reeder, Tilney St. Lawrence	£119 18
Tash, Langley, & Co.	142 10	Sam. Boon, Clenchwarton*	
A. F. Foreman	138 0	J. S. Johnson	112 5
Bardell Bros.	134 10	J. Medwell	105 0
W. F. Smith	120 0		

NEWHAVEN (Sussex).—For the construction of a surface water sewer, for the Urban District Council. Mr. F. J. Rayner, C.E., Newhaven, Sussex:—

A. C. Soan	£799 10 0	E. H. King	£573 18 4
Pierce & Co.	757 17 0	Cooke & Co.	564 15 1
H. Chambers	681 0 4	Roberts & Co.	494 18 2
O. H. Porter	619 0 0	Wm. Smith	398 12 8
R. W. Swaker	610 0 0	Redman Bros., Newhaven*	320 9 0
Peerless, Dennis, & Co.	578 0 0		

NEWPORT.—For eight semi-detached villas, Newport, Salop, for Mr. J. C. Brown, Shakespeare Hotel, Newport. Mr. Myles Morley, architect and surveyor, Charlton House, Wellington, Salop:—

Treasure & Son	£2,998 0 0
Thomas Healey	2,786 2 0
Waugh & Son	2,750 0 0
A. Roper	2,700 0 0
G. I. Muirhead, Newport, Salop*	2,597 17 5
Stretton & Gibson	2,592 5 7
W. Skelthorne	2,591 0 0

NEWPORT.—For ten houses for the Fountain of Peace Lodge, Newport, Salop. Mr. Myles Morley, architect, Charlton House, Wellington:—

Treasure & Son	£2,850 0 0
Thomas Healey	2,539 16 11
A. Roper	2,520 0 0
Whittingham	2,400 0 0
Stretton & Gibson	2,303 13 0
W. Skelthorne	2,231 0 0
G. I. Muirhead, Newport, Salop*	2,195 11 4
Waugh & Son	1,820 0 0

ST. AUSTELL (Cornwall).—For the erection of two houses, for Mr. H. Pearce. Mr. J. Mutton, architect, Charlestown:—

Masonry.

C. Clemo	£302 10
R. Richards	268 10
Lockett Bros., Bethel, St. Austell*	225 0

Carpentry.

Bennett	178 0
Northcott	150 0
A. Mably	134 5
J. Harris, Mount Charles, St. Austell*	129 0

[Architect's total estimate, £350.]

TAMWORTH.—For additions to workhouse, for the Guardians. Mr. Jas. W. Godderidge, architect, 4, Bolebridge-street, Tamworth:—

J. Evans	£10,200	E. Williams, Tamworth*	£8,792
W. Shelhorne	9,565	Gowing & Ingram	8,779
Kelley & Sons	9,123	J. Dallow	8,770
Harvey Gibbs	8,976	T. Mason	8,565
Lowe & Sons	8,950	Radford & Greaves	8,450
J. Herbert	8,797		

LONDON SCHOOL BOARD TENDERS.

At the last meeting of the London School Board the Works Committee submitted the following lists of tenders. Mr. T. J. Bailey is the Board's Architect:—

AMBERLEY-ROAD.—Replacing the iron railing next canal, including the return end, with a 9-in. brick wall:—

General Builders, Ltd.	£369 0	W. R. & A. Hide	£145 15
Brown & Sons	155 0	G. Neal	138 0
Marchant & Hirst	149 0	Chinchen & Co.	119 10
		S. Polden*	103 10

BLACKHEATH-ROAD.—Higher elementary school on two stories. Accommodation: Boys, 300. Hall, 48 ft. by 30 ft.; classrooms, 36, 32, 32, 30, 30, 30, 24, 24, on ground floor; on first floor, 32, 30. Drawing classroom, 750 ft. area; science rooms, 1,950 ft., with balance-room and stores; manual training centre for twenty children. Heating by low-pressure hot-water apparatus. An existing house is to be retained for the use of the schoolkeeper:—

Thomas & Edge	£12,000	Marsland & Sons	£11,715
Munday & Sons	12,603	Martin, Wells & Co., Ltd.	11,617
Gregar & Son	12,521	Johnson & Co.	11,578
T. L. Green	12,383	Appleby & Sons	11,544
Holliday & Greenwood, Ltd.	12,207	J. & M. Patrick	11,455
Lathey Bros.	12,141	Garrett & Son	11,332
F. & H. F. Higgs	12,135	J. & C. Bowyer	10,988
Mitchell & Son	11,966	Longley & Co., Crawley*	10,987
W. Downs	11,923		
Smith & Sons, Ltd.	11,809		

CHILDERIC-ROAD.—Providing and fixing additional heating surface on ground, first, and second floors, to bring existing low-pressure hot-water apparatus up to the Board's present standard; also increasing the power of the boiler:—

Kite & Co.	£325 0	Mather & Platt, Ltd.	£163 0
Turner & Co.	252 10	Duffield & Sons	152 0
Stevens & Sons	179 0	Rosser & Russell, Ltd.	143 0
G. & E. Bradley	167 10	Defries & Sons, Ld.*	130 0

CREED-PLACE. — Removing partitions and providing new glazed partitions in order to re-divide classrooms A and B into three rooms, including reversing the stepped flooring in two of the rooms in each case for left lighting, and forming new doorways, &c. Replacing four windows with larger windows:—

Gibb & Co.	£625	H. Groves	£525
Vigor & Co.	620	A. J. Sheffield	490
Marsland & Sons	592	Leney & Son	415
Proctor & Son	558	G. Kemp*	405

DEANSFIELD-ROAD.—Erecting three brick structures for temporary accommodation available hereafter for (*a*) Manual Training Centre, (*b*) Cookery and Laundry Centre, (*c*) drawing classroom and science-room; also providing temporary water-closets, fuel-shed, fencing, drainage, &c.:—

Rice & Son	£5,846	T. L. Green	£4,889
Thomas & Edge	5,106	Smith & Sons, Ltd.	4,731
Marchant & Hirst	5,075	Proctor & Son	4,420
H. Groves	5,030	Bulled & Co.	4,300
T. D. Leng	4,962	J. & C. Bowyer*	4,160

DUNT'S-HILL.—Erecting a brick building for temporary school accommodation available hereafter for a manual training centre for forty boys; removing temporary offices now stacked on the Fulham Palace-road and Santley-street sites, and re-erecting them on this site; also providing fuel shed and new system of drainage:—

R. A. Jewell	£1,691	E. Triggs	£1,535
Marsland & Sons	1,620	Garrett & Son	1,462
General Builders, Ltd.	1,597	Lathey Bros.	1,400
Whitehead & Co., Ltd.	1,545	W. Hammond*	1,383

EVERINGTON-STREET (All Departments).—Altering position of existing partition and providing additional glazed partitions in order to redivide classrooms C, D, and E into four rooms, including reversing stepping for side lighting, also altering doorways, &c., in connexion with same:—

W. R. & A. Hide	£1,175 0	Maxwell Bros., Ltd.	£959 0
W. Hammond	1,022 0	Lathey Bros.	939 0
General Builders, Ltd.	990 0	G. Neal	924 0
Rice & Son	992 0	S. Polden	916 10
G. H. Sealey	981 10	E. Triggs†	879 0

FARRANCE-STREET.—Refitting girls' lavatories with fireclay basins and providing open channels and new external ventilated waste pipes, &c.:—

Pitcher & Son	£67 0	Vigor & Co.	£78 0
Johnson & Co.	85 0	A. W. Derby	72 0
Stevens Bros.	73 0	Barrett & Power*	67 6

HANOVER-STREET (Boys' and Girls').—Altering position of existing partitions and providing additional glazed partitions in order to re-divide classrooms C and D into three rooms, including altering stepped flooring in the re-divided rooms for side lighting; also bricking up fireplaces and providing open fire portable stoves for warming these rooms, &c.:—

Parrott & Isom	£1,281 0	H. Bouneau	£636 10
Belcher & Co., Ltd.	694 5	McCormick & Sons	633 0
F. Bull	686 0	Dearing & Son	625 0
Stevens Bros.	684 0	Unsigned	596 0
T. L. Green	657 0	Williams & Son*	567 0

HASELRIGGE-ROAD.—Relaying the old soil drains and part surface water, and forming the necessary access with several connexions to the existing trough latrines; also providing additional lavatory accommodation for girls':—

Sanitary Lead-lining and Pipe bending Co., Ltd.	£1,776 6 0	Maxwell Bros., Ltd.	£1,580 0 0
Rice & Son	1,659 0 0	J. & M. Patrick	1,577 0 0
W. Hammond	1,627 0 0	J. & C. Bowyer	1,497 0 0
E. Triggs	1,626 0 0	J. Peattie	1,491 0 0
Lathey Bros.	1,619 0 0	Falkner & Sons	1,488 0 0
R. P. Beattie	1,587 7 6	A. Porter	1,485 0 0
		Leney & Son*	1,467 0 0

HAZELBANK-ROAD.—Removing an iron building from Plum-lane and re-erecting it on this site, including foundations, drains, additional office accommodation, &c.:—

T. Cruwys	£733	Croggon & Co.	£560
Mitson & Co.	650	J. McManus	537
Hawkins & Co.	640	Humphreys, Ltd.	525
Smith & Co.	579	W. Harbrow*	515

NEW PARK-ROAD (Enlargement).—Extending the existing low-pressure hot-water apparatus to six new classrooms and three cloakrooms; also altering and re-arranging same in three classrooms to suit the provision of three new partitions:—

Brightside Foundry and Engineering Co., Ltd.	£204 0 0	Clark, Bunnett, & Co., Ltd.	£131 0 0
Wippell Bros. & Row	190 0 0	Dougill & Co., Ltd.	122 0 0
Esson & Son	177 10 0	Werner, Perderer, & Perkins, Ltd.	93 7 2
Wontner-Smith, Gray, & Co.	135 0 0	J. C. Christie	95 10 0
		Comyn Ching & Co.*	89 10 0

"PETERBOROUGH."—Forming additional entrances to school from Studdridge-street for all departments:—

Lathey Bros.	£379 0	General Builders, Ltd.	£329 0
Thompson & Beveridge	370 0	S. Polden	325 10
W. Hammond	349 0	E. B. Tuckert	285 5

POPE-STREET.—Enlargement and improvements—Boys' and girls' departments—Providing 3 new classrooms, 50, 50, 48, on each floor; reducing existing 70 and 50 classrooms on each floor to 50 and 40 respectively, and providing new corridor; 2 new halls, 50 ft. by 27 ft.; cloakrooms, &c.; new staircase for boys'; schoolkeeper's house; removing boys' and girls' water-closets and covered playgrounds, and providing new; and enclosing and tar-paving the additional land. Providing manual training and cookery and laundry centres and new drainage scheme. Revised accommodation: Boys, 298; girls, 298; infants (unaltered), 240; total, 836. Total net enlargement, 236:—

Macey & Sons, Ltd.	£13,517	Martin, Wells, & Co., Ltd.	£11,697
A. Porter	13,251	Thomas & Edge	11,492
F. & H. F. Higgs	13,123	Marsland & Sons	11,419
Longley & Co.	12,955	Appleby & Sons	11,200
Lawrance & Sons	12,896	T. D. Leng	11,067
Smith & Sons, Ltd.	12,667	Wallis & Sons	10,943
General Builders, Ltd.	12 573	J. & C. Bowyer*	10,787
Garrett & Son	11,881		

QUEEN'S HEAD-STREET — Boys. — Altering position of existing partition between classrooms F and G, and reversing the stepped flooring in the latter room for side lighting; also forming lobby in classroom E for direct access to room F. Girls'.—New glazed partition to divide classroom F, and reversing stepped flooring in one of the divided rooms for side lighting:—

Stevens Bros	£298 0	Dearing & Son	£254 0
F. Bull	276 0	McCormick & Sons	252 0
T. L. Green	275 0	Grover & Son	242 0
Belcher & Co., Ltd.	259 10	Williams & Son*	235 0

[*See also next page.*

SUSSEX-ROAD.—Special school (mentally defective).—Two class-rooms of twenty each, and enclosing, draining and tar-paving the additional land :—

F. & H. F. Higgs	£3,335	0	0	Bulled & Co.	£2,997	0	0
W. Downs	3,195	0	0	Garrett & Son	2,951	0	0
T. D. Leng	3,163	0	0	Rice & Son	2,951	0	0
E. Triggs	3,127	0	0	Lathey Bros.	2,895	0	0
Johnson & Co.	3,122	0	0	Stimpson & Co.	2,867	0	0
R. A. Jewell	3,038	16	1	Marsland & Sons	2,840	0	0
Smith & Sons, Ltd.	3,022	0	0	J. & C. Bowyer	2,839	0	0
Martin, Wells, & Co., Ltd.	3,012	0	0	Mitchell & Son*	2,799	0	0

SWAFFIELD-ROAD.—Enlargement—Classrooms: Boys, 48, 40; girls, 48, 40; infants, 48, 40; total, 264. (Classroom G in each department reduced from :—Boys, 70 to 50; girls, 70 to 50; infants, 81 to 50.) Heating by low-pressure hot-water apparatus :—

F. & H. F. Higgs	£3,210	0	0
W. Downs	3,117	0	0
F. G. Minter	3,090	0	0
Martin, Wells, & Co., Ltd.	3,043	0	0
R. A. Jewell	3,027	18	5
Marchant & Hirst	2,850	0	0
E. Triggs	2,781	0	0
Lathey Bros.	2,775	0	0
J. & C. Bowyer	2,727	0	0
Rice & Son	2,604	0	0
Appleby & Sons	2,666	0	0
Treasure & Son	2,557	0	0
J. & M. Patrick	2,465	0	0
Garrett & Son*	2,457	0	0

VICARAGE-ROAD (Boys' and Girls').—Altering position of existing partition and providing an additional fixed glazed partition in order to re-divide classrooms C and D into three rooms, including reversing stepped flooring in the re-divided rooms for left lighting; also providing new doorways, open fire portable stoves for warming four of the rooms, &c., in connexion with same :—

Gibb & Co.	£562	Marsland & Sons	£419
Vigor & Co.	517	G. Kemp	403
H. Groves	449	A. J. Sheffield*	396
Proctor & Son	420		

Supply of gas mains, fittings, &c. on running contracts :—

	W. G. Cannon & Sons.*		J. C. Christie.*		J. Esson & Son.		Stevens & Sons.	
	A	B	A	B	A	B	A	B
New Work and Extensions	10	7½	5	5	20	20	35	35
Works in Repairs	10	7½	S	2½	25	25	45	45
Day Work—								
(i.) Time	5	2½	10	10	25	25	20	20
(ii.) Materials supplied	7½	7½	S	S	20	20	25	25

"A" is for work to be done North of the Thames and "B" for work South of the Thames.

"S" indicates that the contractors are prepared to undertake the work at the scheduled prices. In the remaining cases they require a percentage to be added to the prices as shown.

Providing and fixing gymnastic apparatus at Linden Lodge :—

A. W. Gamage, Ltd.	£63	15	9
G. Spencer	£54	1	3
T. Cruwys*	53	0	0

B. NOWELL & CO.
STONE MERCHANTS & CONTRACTORS.
Chief Office.—*Warwick Road, KENSINGTON.*
Norway, Guernsey, and Leicestershire Granite, Kerb, Pitching, and Yorkshire Stone.
ESTIMATES GIVEN FOR EVERY DESCRIPTION OF ROAD MAKING.

TERMS OF SUBSCRIPTION.

"THE BUILDER" (Published Weekly) is supplied DIRECT from the Office to residents in any part of the United Kingdom, at the rate of 19s. per annum (52 numbers) PREPAID. To all parts of Europe, America, Australia, New Zealand, India, China, Ceylon, &c., 26s. per annum. Remittances (payable to J. MORGAN) should be addressed to the publisher of "THE BUILDER," Catherine-street, W.C.

SUBSCRIBERS in LONDON and the SUBURBS, by prepaying at the Publishing Office 19s. per annum (52 numbers) or 4s. 9d. per quarter (13 numbers) can ensure receiving "The Builder" by *Friday Morning's Post.*

PUBLISHER'S NOTICES.

THE INDEX (with TITLE-PAGE) for VOLUME LXXXIII. (July to December, 1902) was given as a supplement with the number for January 10th.

CLOTH CASES for Binding the Numbers are now ready, price 2s. 6d. each; also

READING CASES (Cloth), with Strings, price 9d. each.

THE EIGHTY-THIRD VOLUME of "The Builder" (bound) price Twelve Shillings and Sixpence, is NOW READY.

SUBSCRIBERS' VOLUMES, on being sent to the Office, will be bound at a cost of 3s. 6d. each.

CHARGES FOR ADVERTISEMENTS.

COMPETITIONS, CONTRACTS, ALL NOTICES ISSUED BY CORPORATE BODIES, COUNTY AND OTHER COUNCILS, PROSPECTUSES OF PUBLIC COMPANIES, SALES BY TENDER, LEGAL ANNOUNCEMENTS, &c. &c.

Six lines, or under ..... 8s. 6d.
Each additional line ..... 1s. 6d.

SITUATIONS VACANT, PARTNERSHIPS, APPRENTICESHIPS, TRADE AND GENERAL ADVERTISEMENTS.

Six lines (about fifty words) or under ..... 4s. 6d.
Each additional line (about ten words) ..... 0s. 6d.

Terms for series of Trade advertisements, and for front page, and other special positions, on application to the Publisher.

SITUATIONS WANTED (Single-handed—Labour only).
FOUR lines (about thirty words) or under ..... 2s. 6d.
Each additional line (about ten words) ..... 0s. 6d.

PREPAYMENT IS ABSOLUTELY NECESSARY.

*** Stamps *must not* be sent, but all sums should be remitted by Postal Orders, payable to J. MORGAN, and addressed to the Publisher of "THE BUILDER," Catherine-street, W.C.

Advertisements for the current week's issue are received up to THREE o'clock p.m. on THURSDAY, but "Classification" is impossible in the case of any which may reach the Office after HALF-PAST ONE p.m. on that day. Those intended for the Outside Wrapper should be in by TWELVE noon on WEDNESDAY.

ALTERATIONS IN STANDING ADVERTISEMENTS or ORDERS TO DISCONTINUE same must reach the Office before TEN o'clock on WEDNESDAY MORNING.

The Publisher cannot be responsible for DRAWINGS, TESTIMONIALS, &c. left at the Office in reply to advertisements, and strongly recommends that of the latter COPIES ONLY should be sent.

PERSONS Advertising in "The Builder" may have *Replies addressed to the Office*, Catherine-street, Covent Garden, W.C. *free of charge.* Letters will be forwarded if addressed envelopes are sent, together with sufficient stamps to cover the postage. Unused stamps are returned to advertisers the week after publication.

AN EDITION Printed on THIN PAPER, for FOREIGN and COLONIAL CIRCULATION, is issued every week.

READING CASES, { NINEPENCE EACH. By Post (carefully packed) 1s.

W. H. Lascelles & Co.,
121, BUNHILL ROW, LONDON, E.C.
Telephone No. 1365, London Wall.
HIGH-CLASS JOINERY,
LASCELLES' CONCRETE.
Architects' Designs are carried out with the greatest care.
CONSERVATORIES,
GREENHOUSES,
WOODEN BUILDINGS,
Bank, Office, & Shop Fittings.
CHURCH BENCHES & PULPITS.
ESTIMATES GIVEN ON APPLICATION.

THE BATH STONE FIRMS, Ltd.
BATH.
FOR ALL THE PROVED KINDS OF
BATH STONE.
FLUATE, for Hardening, Waterproofing, and Preserving Building Materials.

HAM HILL STONE.
DOULTING STONE.
The Ham Hill and Doulting Stone Co.
(incorporating the Ham Hill Stone Co. and C. Trask & Son, The Doulting Stone Co.).
Chief Office :—Norton, Stoke-under-Ham, Somerset.
London Agent :—Mr. E. A. Williams, 16, Craven-street, Strand.

Asphalte.—The Seyssel and Metallic Lava Asphalte Company (Mr. H. Glenn), Office, 42, Poultry, E.C.—The best and cheapest materials for damp courses, railway arches, warehouse floors, flat roofs, stables, cow-sheds and milk-rooms, granaries, tun-rooms, and terraces. Asphalte Contractors to the Forth Bridge Co.

SPRAGUE & CO., Ltd.,
LITHOGRAPHERS,
Employ a large and efficient Staff especially for Bills of Quantities, &c.
4 & 5, East Harding-st., Fetter-lane, E.C.

QUANTITIES, &c., LITHOGRAPHED accurately and with despatch. [Telephone No. 434 Westminster.
METCHIM & SON { 8, PRINCES STREET, S.W. and 32, CLEMENT'S LANE, E.C.
"QUANTITY SURVEYORS' DIARY AND TABLES," For 1903, price 6d. post 7d. In leather 1/- Post 1/1.

BEST BATH STONE.
Original Hartham Park Box Ground & Corsham.
EVERY BLOCK BRANDED WITH OUR REGISTERED TRADE MARK.
MARSH, SON, & GIBBS, Ltd.
Chief Offices: Great Western Chambers. Bath.
London Offices: 18, Great Western Road, Paddington.
WORKED STONE A SPECIALITY.

PILKINGTON & CO
(ESTABLISHED 1838.)
MONUMENT CHAMBERS,
KING WILLIAM STREET, LONDON, E.C.
Telephone No., 6319 Avenue
Registered Trade Mark,
Polonceau Asphalte.
PATENT ASPHALTE and FELT ROOFING.
ACID-RESISTING ASPHALTE.
WHITE SILICA PAVING.
PYRIMONT SEYSSEL ASPHALTE.

EWART'S
"EMPRESS" SMOKE CURE
NOISELESS
During an experience of 68 YEARS we have found NO COWL so successful as the "EMPRESS" Expert Advice free in London Rail Fare only in Country
EWART & SON LTD. 346-350 EUSTON ROAD LONDON N.W.
Write for Catalogue "Section 30" Post Free

FIGURE TO LEFT OF MAIN ENTRANCE.

FIGURES FOR ANGLE

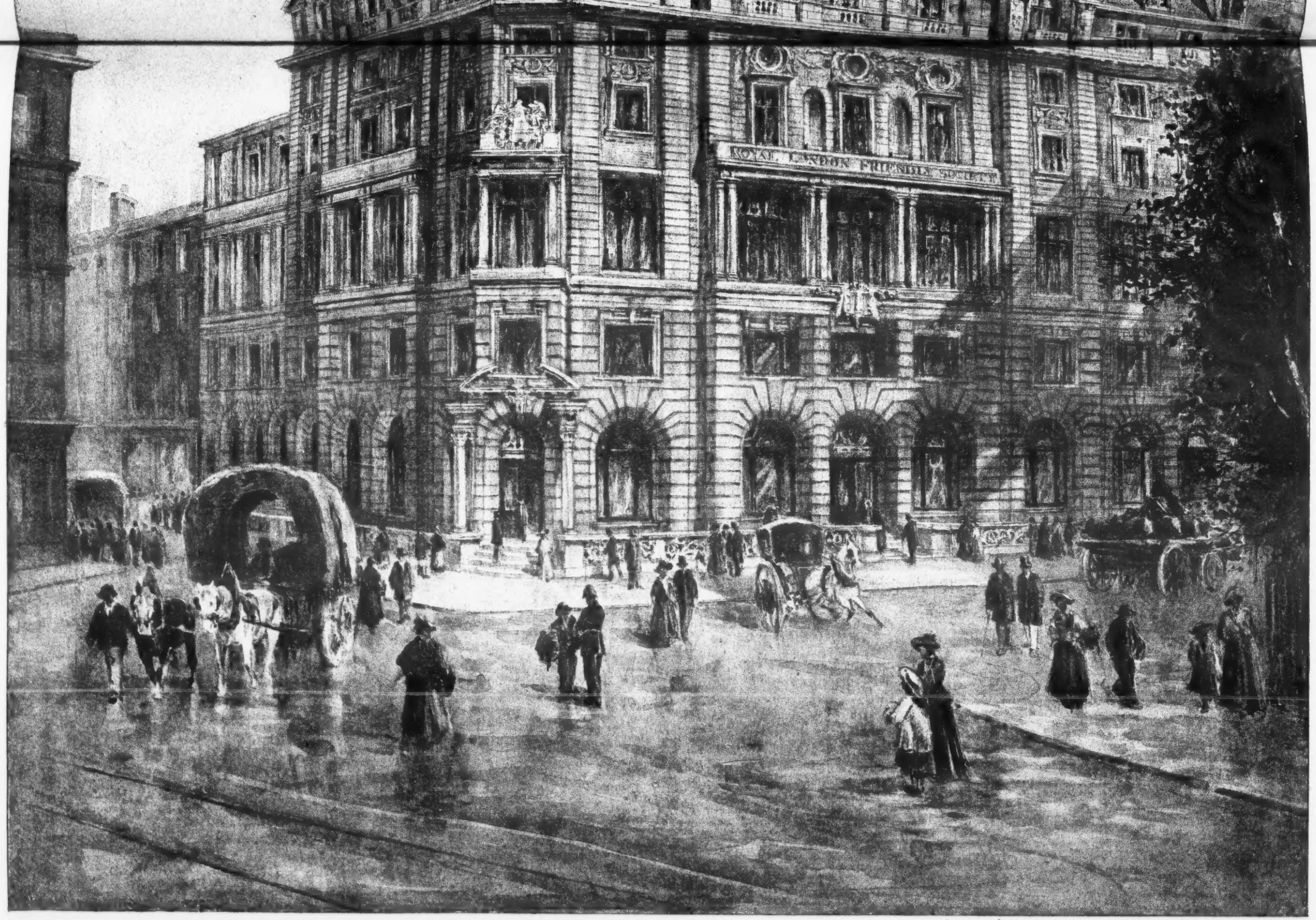
SCULPTURE FOR QUEEN'S HOTEL, SOUTHSEA

RES FOR ANGLE OF BAY.

FIGURE TO RIGHT OF MAIN ENTRANCE.

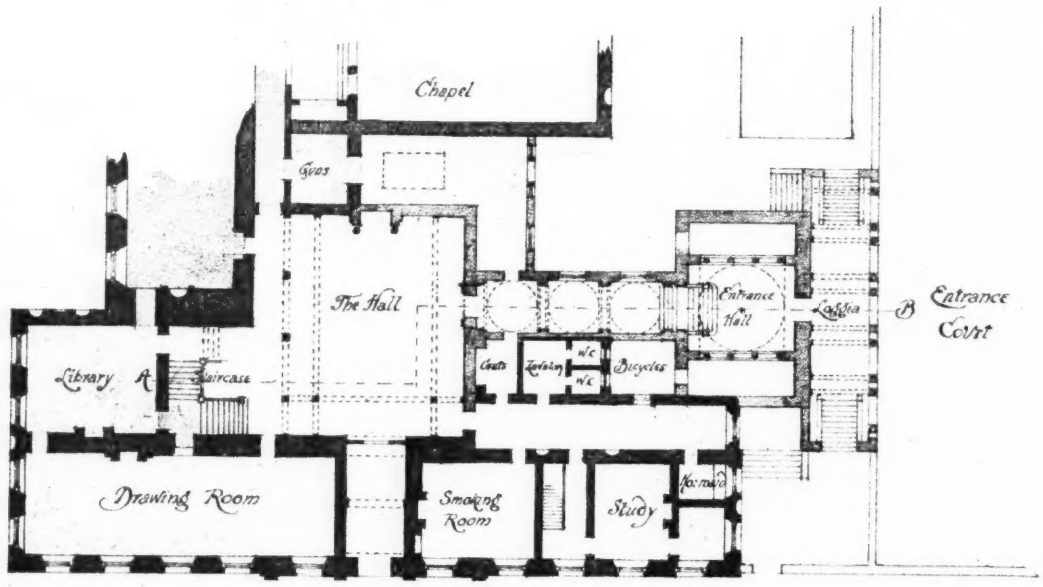
"INK-PHOTO" SPRAGUE & C° LTD 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

TEL, SOUTHSEA.—Mr. F. E. E. Schenck, Sculptor.

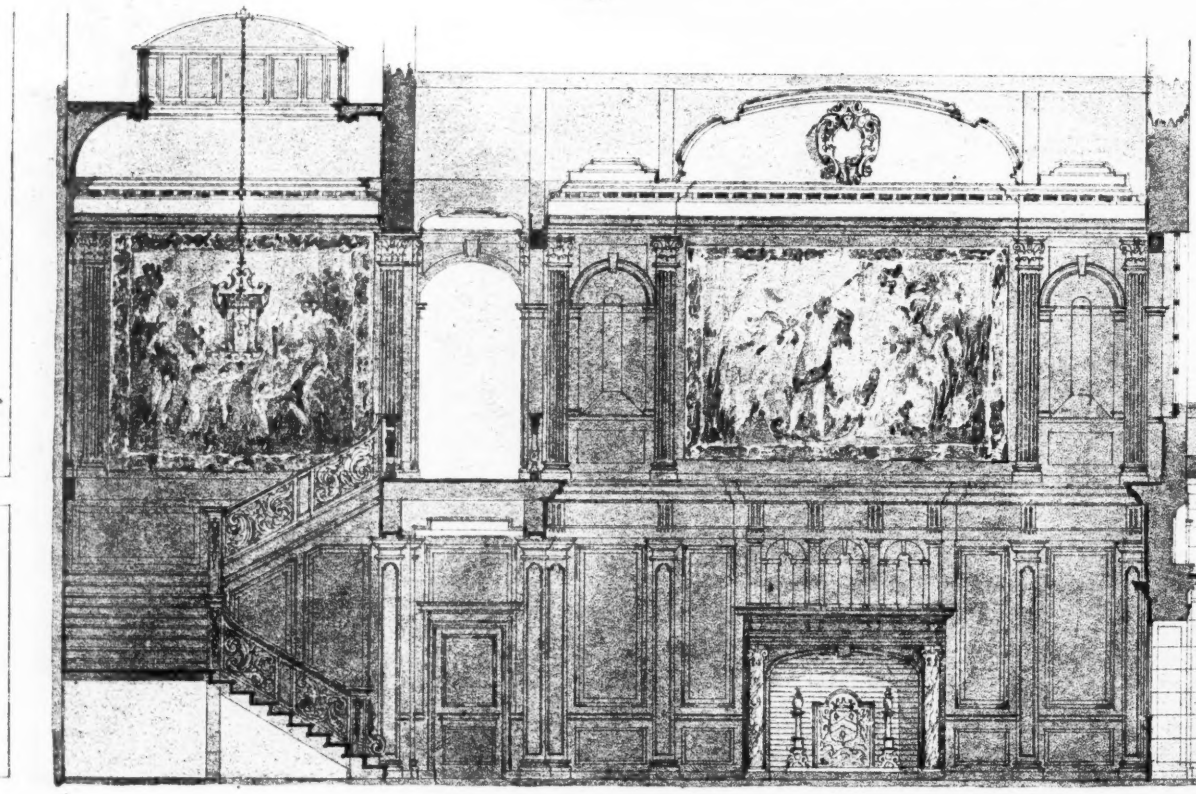


"INK-PHOTO" SPRAGUE & Co Ltd 4 & 5, EAST HARDING STREET, FETTER LANE, E.C.

PREMISES FOR THE ROYAL LONDON FRIENDLY SOCIETY.—Mr. John Belcher, A.R.A., Architect.



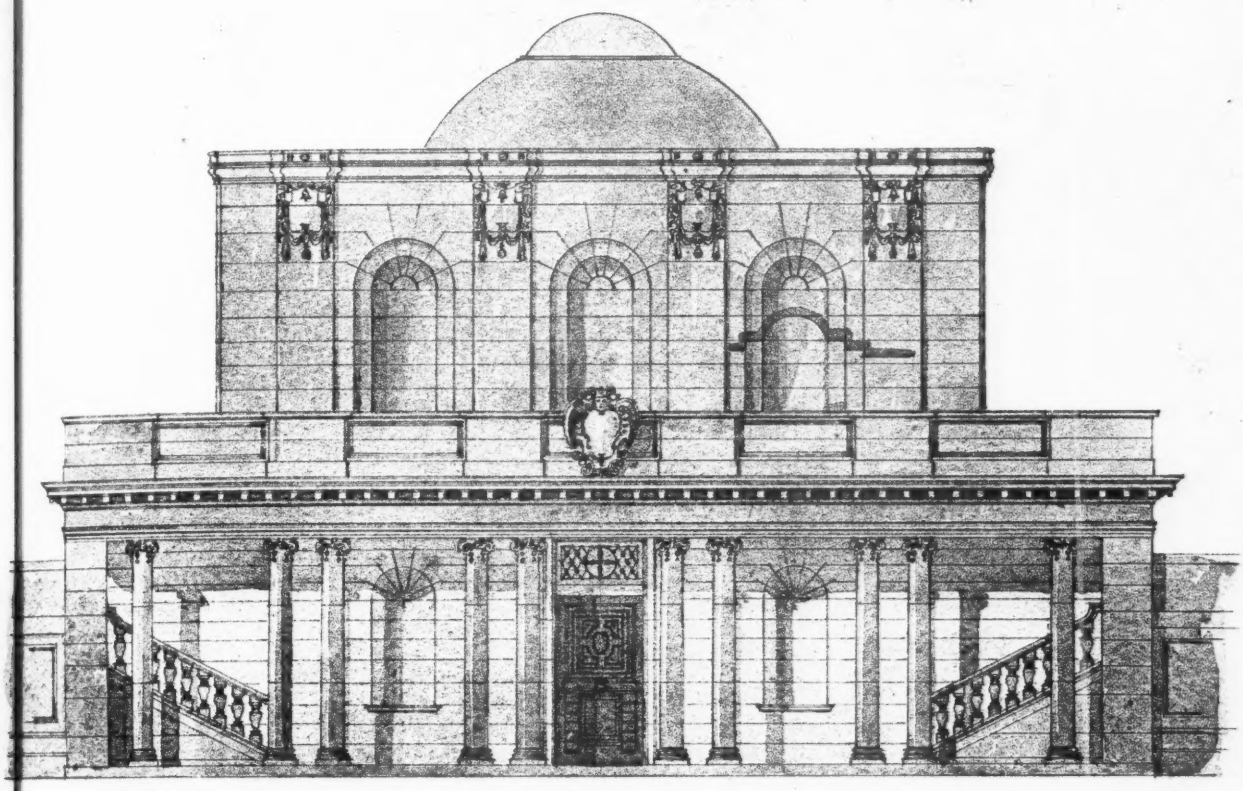
Plan Scale of Feet



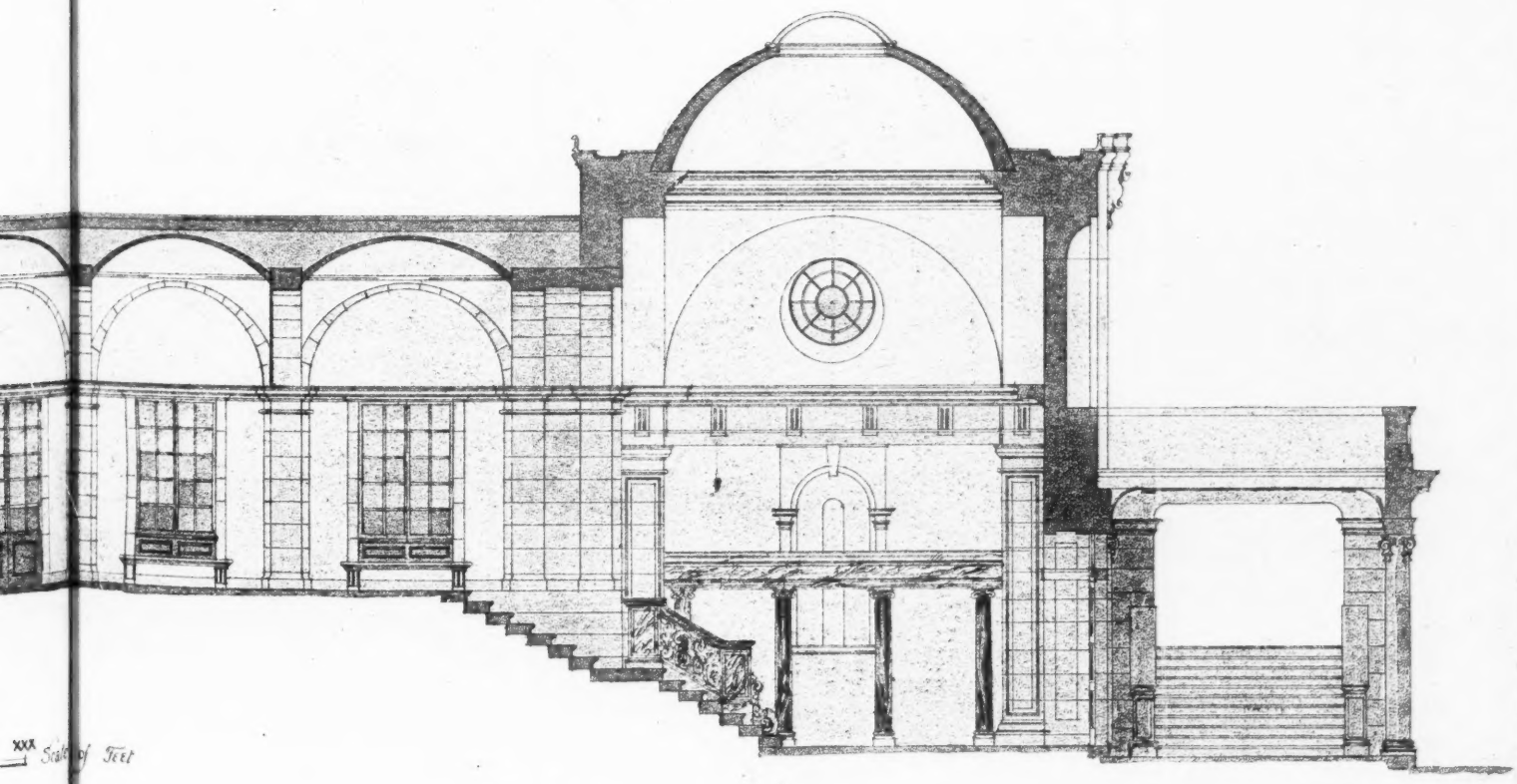
Section on line A-B

Scale of Feet

CORNBURY PARK, OXON. DETAILS OF THE NEW ENTRANCE



Elevation

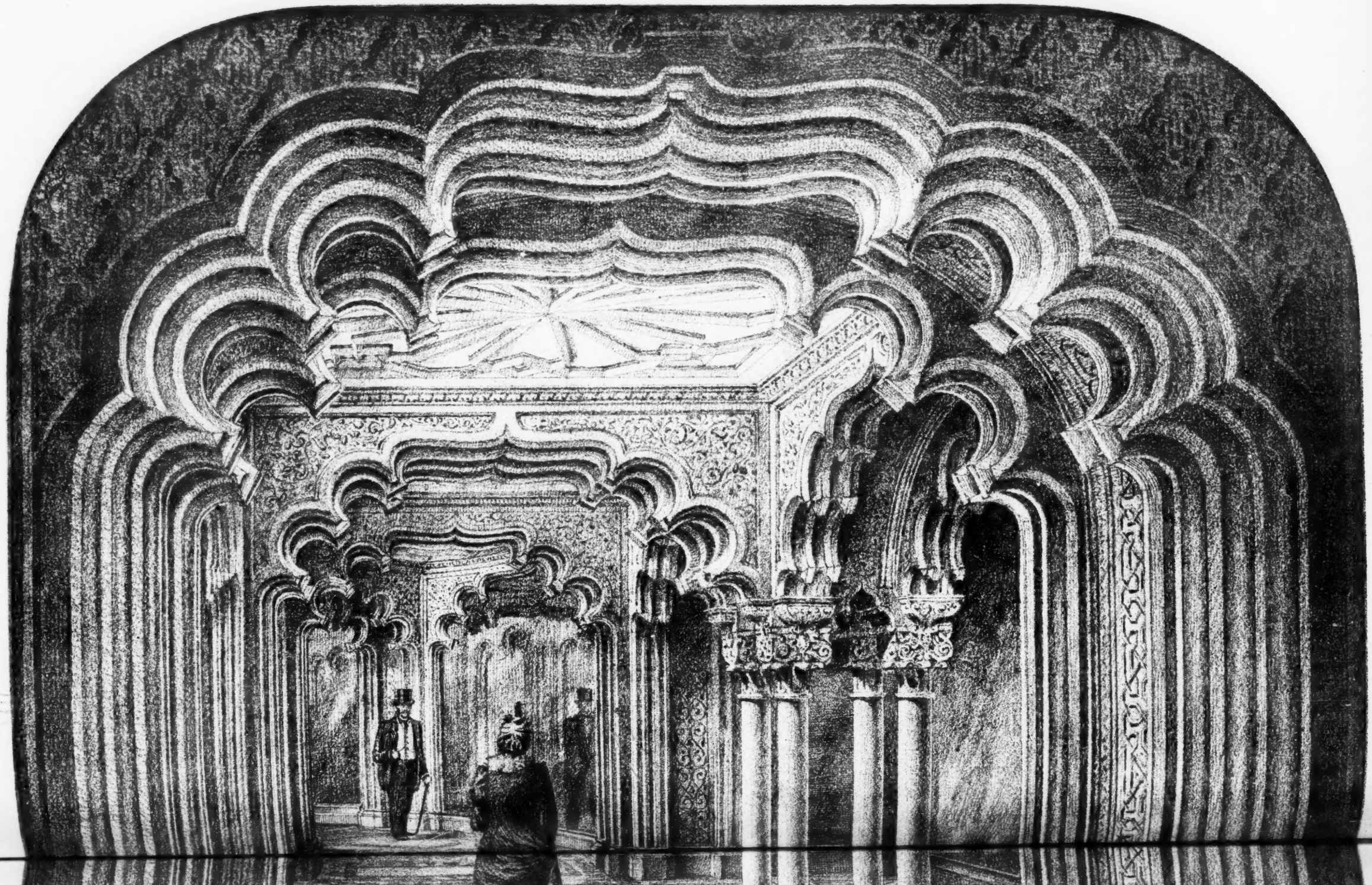


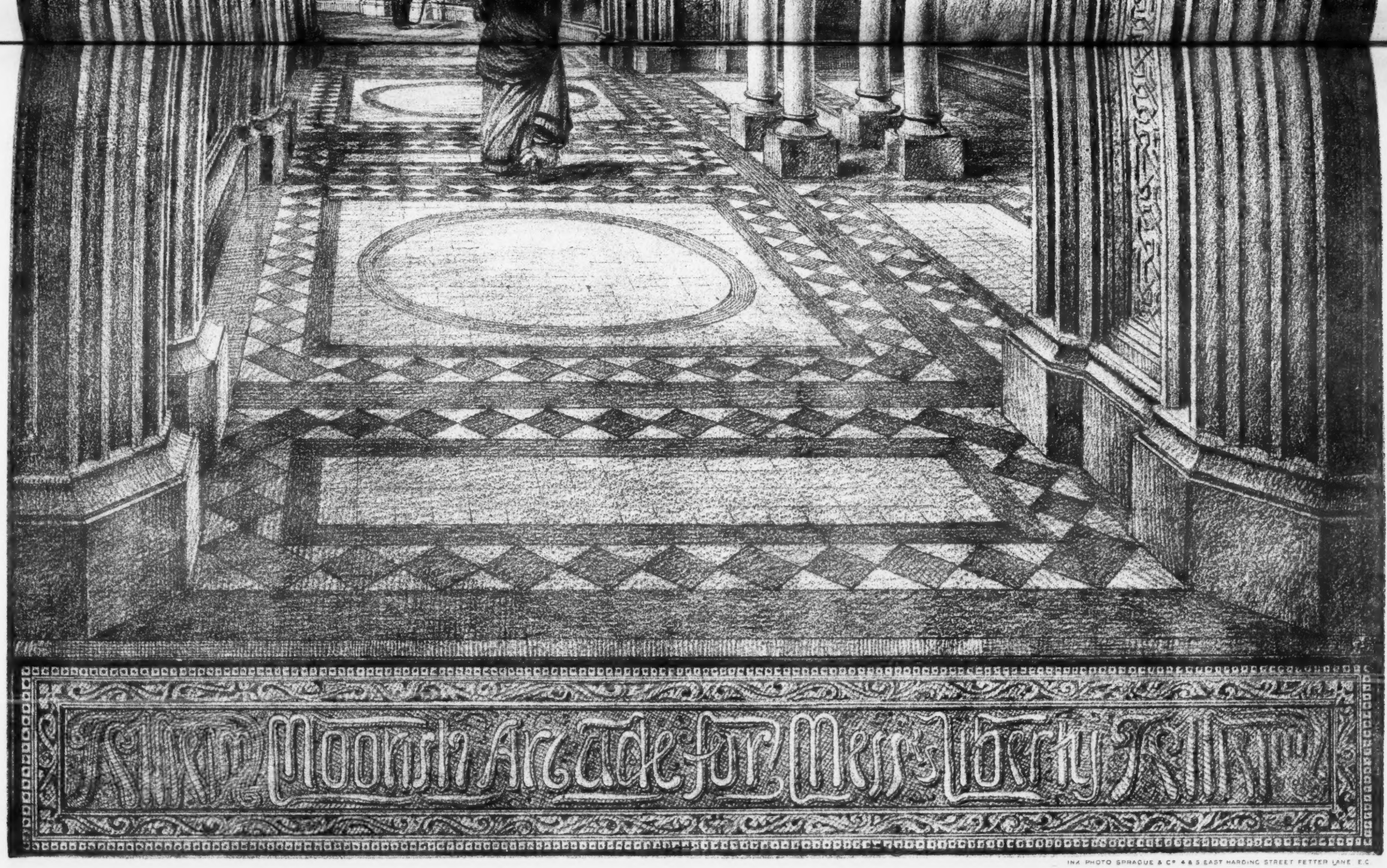
XXX Scale of Feet

John Belcher R.A.

INK PHOTO SPRAGUE & Co LTD 4 & 5 EAST HARDING STREET FETTER LANE E.C.

E NEW TRANCE WING.—Mr. John Belcher, A.R.A., Architect





New Moorish Arcade for Mess.rs Lowry Kilner

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